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LOGICK;

OR,

AN ESSAY

ON

THE ELEMENTS, PRINCIPLES,

AND DIFFERENT

MODES OF REASONING.

BY

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CHAPTER VII.

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SECTION X.

OF TESTIMONY APPLIED TO NEUTRAL FACTS.

572. Calculation cannot be applied to theſe before it be known what claſs of facts they approach moſt to, and their ſtate may be calculated accordingly. See *ante* No. 495.

SECTION XI.

TESTIMONY APPLIED TO IMPROBABLE FACTS, AS THE EXTRAORDINARY.

573. We may ſtate the improbability of *extraordinary* facts at from $\frac{4}{10}$ to $\frac{1}{20000}$, and of extravagant facts at $\frac{1}{1000000000}$, and of *unnatural* facts, at $\frac{1}{1000000}$, but theſe vary in different countries.

The calculation being the ſame in all caſes, where the improbability may be known, or conjectured, I ſhall inſtance it in ſimple caſes only.

574. *Improbable*

574. *Improbable* facts, vouched by a witneſs whoſe credibility is *equal* to the improbability of the fact, that is, who is juſt as credible as the fact is improbable, or (more technically) whoſe favourable chances are as much above $\frac{5}{10}$, as the unfavourable are below it, if 10 be the denominator, (or above doubtful, if there be any other denominator,) are rendered *doubtful*, after ſuch atteſtation, No. 501. Thus if the improbability of the fact is $\frac{2}{10}$, and the credibility of the witneſs $\frac{8}{10}$, here 8 is as much above 5, as 2 is below it; for the difference from 5 in both caſes is 3; then by the affirmative formula, No. 560, $\frac{ba}{ba+b'a'}$, we have $ba=2\times 8$, and $b'a'=8\times 2$, conſequently $\frac{16}{16+16}=\frac{16}{32}=\frac{1}{2}$ or doubtful.

575. If the improbable fact be *denied* by ſuch a witneſs, it becomes more improbable; for, by the negative formula, No. 561, we have $\frac{ba'}{ba'+b'a}$; then, if a fact whoſe improbability is $\frac{2}{10}$ be denied by a witneſs, whoſe credibility is $\frac{8}{10}$, we have $ba'=2\times 2$, and $b'a=8\times 8$, then $\frac{4}{4+64}=\frac{4}{68}=\frac{2}{34}=\frac{1}{17}$ inſtead of $\frac{1}{5}$, which it at firſt was.

576. If

576. If the improbable fact be *affirmed* by a witneſs of a degree of credibility *inferior* to the degree of improbability of the fact, its improbability is leſſened, but not deſtroyed, No. 502; for, by the affirmative formula, as above, the improbable fact being $\frac{2}{10}$, and the credibility of the witneſs $\frac{6}{10}$, we have $ba=2\times6$, and $b'a'=8\times4$, then $\frac{12}{12+32}=\frac{12}{44}=\frac{6}{22}=\frac{3}{11}$.

577. But if the improbable fact be *denied* by a witneſs of *inferior* probability, its improbability is increaſed, No. 504. Thus, as in the above caſe, the ſtate of the fact is $\frac{2}{10}$, and of the witneſs $\frac{6}{10}$; then by the negative formula, we have $ba'=2\times4$, and $b'a=8\times6$, conſequently $\frac{8}{8+48}=\frac{8}{56}=\frac{4}{28}=\frac{2}{14}=\frac{1}{7}$.

578. If the improbable fact is *affirmed* by a witneſs, whoſe credibility is *ſuperior* to the improbability of the fact, it becomes *probable* or *certain* according to the degree of ſuperiority. *Ante*, 504.

Thus if the improbable fact be $\frac{2}{10}$, and the credibility of the witneſs $\frac{9}{10}$, then $ba=2\times9$, and $b'a'=8\times1$, then $\frac{18}{18+8}=\frac{18}{26}=\frac{9}{13}$.

 579. After

579. After what was ſeen, No. 577, it were needleſs to ſhew, that if an improbable fact were *denied* by ſuch a witneſs, it would become highly improbable. It would indeed, in the laſt inſtance, become $\frac{1}{37}$. *Ante*, 504.

SECTION XII.

OF TESTIMONY APPLIED TO SUPERNATURAL AND MIRACULOUS FACTS.

580. The teſtimony neceſſary to induce a belief of ſuch facts, muſt be ſuch as to produce a *certainty*, and not a mere probability. For the facts themſelves being naturally *impoſſible*, cannot be proved by teſtimonies, whoſe truth is merely probable; but that there may be teſtimonies capable of producing a moral *certainty*, and particularly that thoſe of chriſtianity are ſuch, I have already ſhewn, No. 352, &c. and may be ſeen at large in Dr. Paley's excellent treatiſe.

SECTION XIII.

OF THE BELIEF OF A WITNESS.

581.[a] The belief of a witneſs is the opinion which he forms, concerning the exiſtence of a fact, whether affirmative or negative, or of the cauſes, circumſtances, or motives, that concern its exiſtence. It is, therefore, rather an *authority* than a *teſtimony*, and conſequently is of greater or leſs weight, according to the *intelligence* of the perſon that holds and delivers it.

581. *Note* alſo, that the affirmative teſtimony of *ocular* witneſſes is preferable, or more to be relied on, as to their object, than the teſtimony of auricular witneſſes, as to their objects; for what a man does, is more eaſily perceived than what a man ſays. This laſt may be miſunderſtood, or miſtaken, or not diſtinctly heard.

SECTION XIV.

OF PLURAL TESTIMONY.

582. By plural teſtimony I underſtand, either that, which, originating in ſimultaneous obſervations made by two or more perſons, may be called *original*; or it may be delivered by the original witneſs to another, who delivers it to a third, by the third to a fourth, &c. This may be called *ſucceſſive*, or *tranſmitted* teſtimony. I ſhall firſt treat of plural original teſtimony; and as this teſtimony may be *concordant*, *diſcordant*, or *contradictory*, each ſhall be ſeparately conſidered.

SECTION XV.

OF CONCORDANT ORIGINAL TESTIMONY.

583. The credibility or force of concordant and independent witneſſes, is as the product of the chances *favourable* to each, multiplied into

into each other, (this product forms the *numerator* of the fraction, that expreſſes their credibility,) and divided by the product of the chances *unfavourable* to each, that is, of their ſeveral *deficiencies*; theſe two products added to each other, preſent the ſum of the ſeveral chances, both *favourable* and unfavourable, and therefore form the *denominator* of the fraction. Thus, if there were two witneſſes, and if the credibility of one of the witneſſes were $\frac{6}{10}$, and of another $\frac{7}{10}$, the favourable chances of each are 6 and 7, and their product is 42. The unfavourable chances or deficiencies are 4 and 3, their product is 12; then their reſulting combined credibility, is $\frac{42}{42+12}=\frac{42}{54}=\frac{777}{1000}$.

And if there were three witneſſes, whoſe credibilities were reſpectively $\frac{6}{10}$, $\frac{7}{10}$, and $\frac{8}{10}$, then the product of the favourable chances would be, $6\times7\times8=336$; and their ſeveral deficiencies being 4, 3, and 2, and the product of theſe being $4\times3\times2=24$, the fraction repreſenting the combined credibility is $\frac{336}{336+24}=\frac{336}{360}=\frac{933}{1000}$. Hence we ſee the immenſe

force of the teſtimony of numerous concordant witneſſes.

584. Thus the force of the combined teſtimony of ten of the apoſtlēs, that of each ſeparately, (abſtracting from their ſufferings, and other circumſtances,) being rated at only $\frac{9}{10}$, would amount to $\frac{34867844 01}{34867844 01+1}=\frac{34867844 01}{34867844 02}$.

585. Hence we ſee the ſtreſs our law juſtly lays on the concordant opinion of twelve jurymen, if obtained without coercion, and formed by men of ſufficient integrity and knowledge; otherwiſe their verdict is in reality of little or no worth.

586. Obſerve, however, that the credibility of one witneſs of *high* credibility, may be *ſuperior* to the combined credibility of two witneſſes, whoſe ſeparate credibilities are *lower*. Thus if the credibility of one of the concordant witneſſes, be $\frac{6}{10}$, and that of the other $\frac{7}{10}$, then their combined credibility is, $\frac{42}{42+12}=\frac{42}{54}=\frac{77}{100}$. Whereas the credibility of one witneſs may be $\frac{8}{10}=\frac{80}{100}$; and the difference would be ſtill greater, if the credibility of the ſingle witneſs were $\frac{9}{10}=\frac{90}{100}$.

587. It

587. It is ſuppoſed alſo, as has been already mentioned, that theſe witneſſes are *independent*, that is, have not agreed with each other to make the ſame report. This, indeed, is implied in the degrees of integrity and veracity which we ſuppoſe them to poſſeſs, and the want of which, without ſufficient reaſon, we ſhould not ſuſpect; but if we have ſufficient cauſe to ſuſpect, that the concordancy of their teſtimony ariſes from any other reaſon but their joint perception of the ſame object, the force of their joint teſtimony is weakened, in proportion to the probability of the truth of that reaſon. Now, to find how much the credibility of the combined teſtimony is thereby diminiſhed, let the probability of the exiſtence of the undue cauſe of the concordancy of the teſtimony be ſtated; then,

588. Let the chances favourable to the credit of the joint teſtimony $=a$, and thoſe unfavourable to it $=a'$; let the chances favourable to the exiſtence of a ſiniſter cauſe $=b$, and thoſe unfavourable $=b'$; then the reſulting credibility of the joint teſtimony is $\frac{ab'}{ab'+a'b}$.

589. As

589. As there is no preciſe meaſure of the credibility of any witneſſes, and as different perſons may denote the credibility of witneſſes by different fractions, I think an intelligent jury ſhould ſtrike an average meaſure of all their particular eſtimations, as alſo of their eſtimations of the internal probability of the fact atteſted, and upon the reſult of the application of theſe average meaſures, form their joint opinion; the ſame mode may be followed in references.

590. The concordancy even of two dubious independent witneſſes, is of ſome weight; and of four ſuch witneſſes, the credibility is ſtill ſtronger, and ſo much the greater, as they are more numerous; for in proportion to their numbers, their diſagreement is much more probable than their agreement, in any particular ſtatement. If therefore, they do agree, this agreement muſt have ſome cauſe; and in the ſuppoſition that they are independent, that is, have entered into no concert with each other, no other cauſe of their agreement can be aſſigned, but the reality of their having jointly perceived the object atteſted.

591. The credibility therefore of their concordant

concordant atteſtation, is equal to the improbability of their agreement, which is found by ſubtracting the product of the fractions, reſulting from their union, from *one*. Thus the probability of each of the witneſſes being $\frac{1}{2}$, the product of two of them is $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$. and $\frac{1}{4}$ ſubtracted from $1 = \frac{3}{4}$, for $\frac{1}{4} + \frac{3}{4} = 1$; $\frac{3}{4}$ therefore expreſſes the improbability of their agreement, and conſequently is the meaſure of the credibility of their joint atteſtation.

592. To make this concluſion perfectly clear, let us notice the chance of throwing a *head* upon a halfpenny: this is but one chance out of two, for a harp is equally poſſible. Therefore, the chance of turning a head is $\frac{1}{2}$, for only two events can happen; but the chance of turning a *head* twice, or on two halfpence, is only $\frac{1}{4}$, for four events may happen, and this is one of them; for upon one of them you may turn a *head*, and upon the other a *harp*; or upon the firſt you may turn a *harp*, and on the other a *head*; or you may turn

turn harps upon both; or, laſtly, you may turn *heads* on both.

593. Hence the credibility of three ſuch witneſſes being $\frac{1}{2}\times\frac{1}{2}\times\frac{1}{2}=\frac{1}{8}$, the credibility of their concordant atteſtation is $1-\frac{1}{8}=\frac{7}{8}=\frac{875}{1000}$ $=\frac{9}{10}$ nearly.

594. This reſult of the combined teſtimony of *doubtful* witneſſes, is comfortable to a jury, to whom the credibility of the witneſſes is frequently unknown; but to a *ſingle* doubtful witneſs, even if he ſhould agree with others that are credible, I ſhould pay no regard.

595. As to witneſſes whoſe credibility is below $\frac{1}{2}$, I think them unworthy of conſideration, even if they ſhould agree; for, as they are aſſumed to be falſe witneſſes, their agreement muſt be imputed to ſome ſiniſter cauſe.

596. From what has been ſaid, No. 586, and 593, we may deduce, that the credibility of a witneſs of *high* credit, as $\frac{9}{10}$, is ſuperior to that of three witneſſes of doubtful credit, and often of many more.

SECTION

SECTION XVI.

OF DR. HALLEY'S ESTIMATION OF CONCORDANT TESTIMONY.

597. Dr. Halley, 3d Phil. Trans. abridged, 662, lays down the following principles:

Firſt, that *moral certainty* conſiſts in that aſſurance, in which the mind abſolutely acquieſces, and which being had, it requires no further aſſurance.

Secondly, that *probability* conſiſts in an incomplete certainty; therefore, if a denotes a ſhare of certainty, and c the complement or ſhare wanting to render that certainty complete, then $\frac{a}{a+c}$ will repreſent that probability. Thus if $a=5$, and $c=1$, then $\frac{5}{5+1}=\frac{5}{6}$; all which is right, and conformable to the principles above laid down.

598. But then he adds,* where there are two concurrent witneſſes, of equal credibility,

* Phil. Trans. vol. 21. No. 257, p. 361. and Phil. Trans. Abr. vol. iii. p. 663.

the

the ſecond does no more than leſſen part of the deficiency of the firſt; thus, ſays he, if the firſt witneſs gives me a probability of $\frac{5}{6}$, here $\frac{1}{6}$ is wanting to make that probability a complete certainty; and the ſecond witneſs gives me $\frac{5}{6}$ of that deficiency, $\frac{1}{6}=\frac{5}{36}$; thus, if one of them gives a ſhare of certainty for £1200, amounting to $\frac{5}{6}$, there remains but an aſſurance of $\frac{1}{6}$, or of £200, wanting to me for the whole, and the ſecond witneſs gives me that; that is, to the $\frac{5}{6}$ before had, he adds $\frac{5}{6}$ of the $\frac{1}{6}$ which was wanting; ſo that there is now wanting, but $\frac{1}{6}$ of $\frac{1}{6}=\frac{1}{36}$, and conſequently their joint atteſtation gives an aſſurance of $\frac{35}{36}$; (for ſince only $\frac{1}{6}$ is wanting to make a certainty, the fraction muſt be $\frac{35}{36}$.)

599. It muſt be owned this is a ſtrange mode of calculation; for, in the firſt place, it is ſuppoſed, that the aſſurance of the firſt witneſs reaches to no more than to $\frac{5}{6}$ of the £1200, that is, to £1000, and that, as to that ſum, it amounts to a certainty, (and indeed he calls it ſo;) whereas, it is evident that it reaches

reaches to the whole of the 1200, as the witneſs expreſſly aſſerts; and the $\frac{1}{6}$ wanting, relates to the credibility of the witneſs, and not at all to any particular part of the ſum or thing atteſted.

Suppoſe ſuch a witneſs atteſted that ſome man were dead, could it be ſaid, that he gave an aſſurance of $\frac{5}{6}$ of his death?

Again, the teſtimony of the ſecond witneſs extends to the whole £1200; and not to any particular portion of it; and therefore, confining it to $\frac{1}{6}$ of that ſum, viz. £200, is merely arbitrary, and without any foundation.

600. As to what he adds in the corollary, I allow the inſtance he gives to be true though deduced from falſe principles; and it perfectly agrees with what I laid down, No. 591, namely, that the combined atteſtation of two dubious witneſſes, gives $\frac{3}{4}$ of a certainty, and of three ſuch witneſſes, $\frac{7}{8}$ of a certainty, &c.

SECTION XVII.

OF VARIANT ORIGINAL TESTIMONY.

601. By *variant* teſtimony I underſtand that in which the reports of two or more witneſſes differ, without being either contrary or contradictory to each other. If there be three witneſſes, all three may differ, or two may agree and one differ; if there be four, three may agree, and one differ, or two may agree and two differ, or all four may differ, &c.; hence all the poſſible variations of witneſſes, *relative to a ſingle point*, are equal to the number of witneſſes leſs 1.

602. Again, variations of teſtimony may reſpect either the ſubſtance of the fact, or its adjuncts, or its circumſtances.

Thus, in the relation of a battle by three witneſſes, one of them may ſay, that three regiments purſued the enemy five miles; another may ſay, that two regiments purſued the enemy three miles; and the third may ſay, that

that the enemy were purſued, omitting the number of miles.

603. Here all three agree as to the ſubſtance of the fact, viz. the purſuit, but they differ as to the adjunct, that is, the number of regiments that purſued, and as to the circumſtance, that is, the number of miles to which the purſuit extended.

604. The ſubſtance and circumſtances of a fact, are comprehended in a Latin line, *quis, quid, quot, ubi, quibus auxiliis*, cur, *quomodo, quando*. Here *quid* denotes the ſubſtance of the fact, *quis* and *quot* the agents, or adjuncts, and the remainder the circumſtances.

605. Aſſertion of a fact by one witneſs, and its omiſſion by another, equally capable of obſerving it, amounts to a variation in the ſubſtance of the fact, as is evident.

606. A variation as to the ſubſtance of the fact, in the teſtimonies of two witneſſes *equally credible*, renders the teſtimony of each of them *doubtful*; for ſince the object, if it exiſted, ſhould have been obſerved by both, there is as much reaſon to diſbelieve its exiſtence, from the omiſſion of it, by one capable of diſcerning it, as there is of believing

it from the aſſertion of the other; and conſequently they are to be conſidered as contradictory witneſſes.

607. A variation in the atteſtation of the *adjuncts* of the fact, does not always invalidate their credibility as to the *ſubſtance* of the fact; for the completion of an action, often requires a conſiderable ſpace of time. One witneſs may have obſerved it in its beginning, another in a middle period, and a third, towards the end: conſequently, all may not have obſerved the ſame adjuncts. Thus in the caſe No. 602, two regiments might have purſued the enemy in the beginning, and three at the end of the conflict; thus the two demoniacs mentioned in the Goſpel of St. Matthew, chap. 8, and of St. Mark, chap. 5, might have been ſucceſſively cured.

608. Matthew may have obſerved both cures, others, only the laſt. But if the action were inſtantaneous, and the reſult not notorious, then it ſeems to me that a variation in teſtifying the adjuncts of the fact, would affect the ſubſtance, and, if the witneſſes were equally credible, render their teſtimony doubtful.

609. A

609. A variation in the atteſtation of the *circumſtances* of a fact, does not affect the credibility of the witneſſes, as to the *ſubſtance* of that fact: for their attention being principally directed to the ſubſtance, miſtakes may ariſe as to the *time*, and often even as to the *place* and *manner*, which are of little importance.

610. From what has been thus ſtated, it follows that variant witneſſes, may in ſome points be conſidered as *concordant*, and their teſtimony jointly calculated; in other points, as in No. 606, as *contradictory*; and in others, as merely *diſcordant*, but not oppoſite, and their credit ſeparately eſtimated.

611. If there be ſeveral diſcordant witneſſes, the teſtimony of thoſe that agree, muſt be calculated, as that of concordant witneſſes; and if all diſagree, each muſt be calculated apart.

SECTION XVIII.

OF INCONSISTENT ORIGINAL TESTIMONIES.

Theſe are either *contrary* or *contradictory* to each other, and reſpect either indifferent or probable facts.

Of Contrary Teſtimonies.

612. *Contrary* teſtimonies conſiſt of aſſertions equally general, or equally particular; whereof the one denies what the other aſſerts, or as logicians call them, that agree in quantity, but diſagree in quality.

613. Thus if one witneſs aſſerts, that *all the Turks were put to the ſword at the taking of Iſmail*; and another aſſerts, that *none of the Turks were put to the ſword on that occaſion*; both theſe aſſertions cannot be true, but both may be falſe; for ſome Turks may have been maſſacred, and ſome not; or one may be true, as *that all were maſſacred*, and the other falſe, *that none were maſſacred.*

614. If

614. If both aſſertions were *particular*, as that *ſome were put to death, and ſome not*, they may be both true, or one may be true and the other falſe, though incompletely. Thus, if all were maſſacred, it were falſe that ſome were not maſſacred, and the aſſertion that ſome were maſſacred would be true, but incompletely.

With reſpect to Indifferent and Neutral Facts.

615. *General* aſſertions of two witneſſes of *equal credibility*, contrary to each other, deſtroy each other, and no judgment can be paſſed upon them.

616. But if their *credibility be unequal*, the teſtimony of the moſt credible of the two witneſſes, is diminiſhed by the oppoſition of another, though leſs credible. And to find to what degree, let the chances favourable to the credibility of the moſt credible, be multiplied into the deficiencies of the leaſt credible, and let this product be the *numerator* of the fraction; then let the deficiencies of the moſt credible, be multiplied into the chances favourable to the credit of the leſs credible or

the two witneſſes, and let both theſe products, added to each other, form the *denominator* of the fraction that exhibits the remaining credibility of the moſt credible of the two witneſſes.

As in the following formula,* the ſeparate probability of each of the two witneſſes being eſtimated and marked.

Let the chances favourable to the credit of the moſt credible of the two witneſſes be a, and his deficiency $=a'$;

Let the chances favourable to the credit of the leſs credible of the two witneſſes $=b$, and his deficiency $=b'$;

Then $\frac{ab'}{ab'+a'b}$ = the credibility remaining to the moſt credible of the two witneſſes.

To find how much the credibility of the teſtimony of the *leſs credible* of the two witneſſes is diminiſhed by the oppoſition *of the moſt credible*, the formula is $\frac{ba'}{ba'+b'a}$.

617. Thus if one attending phyſician ſays his patient labours under a diſorder in the lungs, and another, of lower repute, aſſerts the

* See 1 Lofft's Gilbert on Evidence, p. 294, &c.

diſorder

diſorder to be ſeated in the liver; here is an *indifferent* fact; for, to all unſkilled in medicine, one appears as probable as the other; and the aſſertions are contrary, though not contradictory, for both may be falſe.

Then let the credibility of the firſt, whom I ſhall ſuppoſe the moſt credible, $=\frac{9}{10}$, and that of the leaſt credible $\frac{8}{10}$; then the chances favourable to the aſſertion of the firſt phyſician are nine, and thoſe unfavourable to that of the ſecond phyſician $=2$; then $9\times 2=18$ is the numerator of the fraction. The chances favourable to the aſſertion of the ſecond phyſician are 8, and the deficiency of the firſt phyſician $=1$, and $8\times 1=8$; then $\frac{18}{18+8}=\frac{18}{26}$, is the remaining credibility of the aſſertion of the firſt phyſician $=\frac{9}{13}$; ſo that his credit, by means of the oppoſition, is on this occaſion conſiderably reduced, viz. from $\frac{9}{10}$ to nearly $\frac{7}{10}$. And by the ſecond formula, the credit of the teſtimony of the ſecond phyſician, is, by the oppoſition of the firſt, reduced to $\frac{4}{13}$, for $\frac{8\times 1}{8\times 1+2\cdot 9}=\frac{8}{8+18}=\frac{8}{26}=\frac{4}{13}$, and conſequently below credibility.

618. If in the caſe of the phyſicians above mentioned, the aſſertion of the firſt phyſician were oppoſed by the *concordant* aſſertions of two phyſicians, whoſe reſpective credibilities were $\frac{8}{10}$, we muſt find the combined credibility of the concordant aſſertions, as in No. 583, and then compare the reſult with the credibility of the firſt phyſician.

Now the combined credibility is $8\times8=64$, and $2\times2=4$, then we have $\frac{64}{64+4}=\frac{64}{68}=\frac{32}{34}=\frac{16}{17}$; thus we ſee their joint aſſertion is ſomewhat more credible, than the aſſertion of the firſt phyſician; for, 16. 17 :: 9, 411, &c. 10.

619. What has been ſaid of the different opinions of phyſicians, may be obſerved alſo of the opinions of lawyers, and other varying reports, made by perſons ſkilled in ſubjects not generally underſtood by the public.

With reſpect to Probable Facts.

620. If the credibility of the witneſſes that oppoſe each other be equal, two opinions may be held; firſt, that theſe teſtimonies deſtroy each other, and ſecondly, that the affirmative

affirmative teſtimony, coinciding with the probability of the fact, ſhould on this occaſion be preferred to the other. The firſt opinion, however, ſeems to me the juſter; for if the firſt teſtimony were preferred, and the fact thus eſtabliſhed, the oppoſite teſtimony would be of no effect, which is abſurd; for, then it might as well not exiſt. It ſeems therefore, that in this caſe, the fact remains as if unatteſted, and can be maintained only by its internal probability.

621. But if the credibilities of the witneſſes that oppoſe each other, be *unequal*, the reſulting probability of the fact may be found by the following formula.

622. Let the chances favourable to the probability of the fact $=b$, and the unfavourable $=b'$;

Let the chances favourable to the credit of the witneſs who *affirms* it $=a$, and his deficiency $=a'$;

Let the chances favourable to the credit of the witneſs who *denies* it, $=n$, and his deficiency $=n'$;

Then the reſulting probability of the fact $=\frac{ban'}{ban'+ba'n}$.

Thus

Thus if the probability of the fact be $\frac{9}{10}$, and the credibility of the witneſs who affirms it $\frac{8}{10}$, and of the witneſs who denies it $\frac{7}{10}$, then we have $9\times8\times3=216$, the numerator of the fraction. And $1\times2\times7=14$, added to $216=230$, the denominator of the fraction $=\frac{216}{230}=\frac{108}{115}=\frac{27}{29}$ nearly, or more exactly, $\frac{27}{28,75}$; which exceeds the original probability of the fact by a ſmall fraction; for 27, 28, 75 :: 9, 38.10.

623. Thus we ſee, the reſults muſt vary according to the various probabilities of the object, and the various credibilities of the affirming and oppoſing witneſſes.

624. What is here ſaid of probable *facts*, may alſo be extended to probable opinions, ſupported and denied by unequal authorities.

It is well obſerved by Dr. Marſh, in his notes on Michaelis, vol. iii. p. 8;

"When we have certain knowledge of the exiſtence of a fact, as that of an engagement between two armies, no contradictions in the accounts of that fact can diſprove the exiſtence of the fact itſelf. But when the queſtion is in agitation, whether an alleged fact be

true

true or not, our *conviction* of the truth of it, will certainly be affected by the concurrence, or contradiction of the teſtimonies in its favour. And if the contradictions are ſuch, as to be wholly incapable of a reconciliation, the proof of the fact will certainly not be ſo ſatisfactory, as it would, if the witneſſes agreed. But ſince not every deviation is a contradiction, and the ſame fact, as viewed by different perſons in different lights, not only may, but muſt be reported by them in different ways; we muſt examine, whether the deviations are ſuch, as may be explained on this principle. If they are, and the witneſſes are in other reſpects credible, we have no reaſon for refuſing our aſſent. Further, we muſt diſtinguiſh variations, in reſpect to concomitant circumſtances, from variations in reſpect to the main fact; for the former are of much leſs importance than the latter."

With reſpect to Improbable Facts.

625. If *affirmed* and *denied* by the ſame number of witneſſes *equally* credible, their improbability remains unaltered, as ſaid, No. 620.

626. But

626. But if the credibilities of the oppoſite witneſſes be *unequal*, the reſulting ſtate of the fact may be found by the formula No. 622.

With reſpect to contradictory Original Teſtimonies.

627. The credibility of theſe is calculated as that of contrary teſtimonies; the only difference is, that one muſt be true, and the other falſe, whereas contrary teſtimonies may be both falſe.

628. The method recommended by Mr. Hume, in his Eſſay on Miracles, p. 344, 345, for comparing and balancing contradictory teſtimonies, conſiſts in deducting the *inferior* credibility from the ſuperior; the remainder, he ſays, will ſhow, how much the ſuperior is weakened. If ſo, this abſurdity would follow, that the credit of the moſt reſpectable witneſs would be deſtroyed by the oppoſition of one whoſe credibility is doubtful; for, ſuppoſe the credibility of the one to be $\frac{9}{10}$, and of the other only $\frac{5}{10}$, then $\frac{9-5}{10}=\frac{4}{10}$, which being below

below $\frac{1}{2}$, denotes improbability, or incredibility. In the above caſe, the credit of the firſt phyſician would by ſuch ſubtraction be reduced to $\frac{1}{10}$.

SECTION XIX.

OF SUCCESSIVE OR TRANSMITTED TESTIMONIES.

629. If *A* relates to me a fact, which he heard from *B*, and that *B* heard it from *C*, and that *C* heard it from *D*, and that *D* was the immediate witneſs of the fact, here is a fact conveyed to me through four witneſſes; but there is but one witneſs to the fact, namely *D*. And beſides this *principal* fact, there are three diſtinct *ſubordinate* facts, namely, that *D* reported it to *C*, that *C* reported it to *B*, and that *B* reported it to *A*; each of theſe can atteſt no more, than his own reception of the fact, from the next preceding witneſs, and of the perſons through whom he was informed it was conveyed.

Hence it is plain, that the aggregate credibility

credibility of theſe witneſſes cannot be calculated like that of ſimultaneous witneſſes, by multiplying the chances, favourable to the truth of each, into each other, as in No. 583; for there all the teſtimonies were ſuppoſed to bear upon one fact, but here they all relate to different facts, namely, their ſeveral receptions of the principal fact. Let us ſuppoſe the *general* credibility of each of theſe witneſſes be known, and to be, for inſtance, $\frac{9}{10}$, then I have $\frac{9}{10}$ of a certainty, that *A* received the report from *B*; but though the general credibility of *B* is alſo ſuppoſed to be $\frac{9}{10}$, yet that he received this report from *C*, I have only the probability of the $\frac{9}{10}$ which I received from *A*, that is, $\frac{9}{10}$ of *B*'s $\frac{9}{10}$. For, if *B* made the report immediately to myſelf, I could have no greater probability of its truth, than $\frac{9}{10}$ by the ſuppoſition; and it were abſurd to ſuppoſe, I could have the ſame portion of certainty, when I knew it not by my own ſenſes, as if I had ſo received it.

630. Hence, the rule is to multiply the fractions, indicating the general credibilities

of

of each of the ſucceſſive witneſſes into each other; the product gives the aggregate credibility of all the witneſſes.

631. As the credibilities, thus found, continually decreaſe, it is needleſs to puſh the calculation further than the point at which the aggregate becomes *doubtful*; that is, equal $\frac{1}{2}$: this point, if the credibility of each of the witneſſes be ſuppoſed equal, (for inſtance $\frac{9}{10}$,) is found without tedious multiplications, by dividing the given credibility by its deficiency, and multiplying the quotient into $\frac{7}{10}$; thus the original credibility being $\frac{9}{10}$, it is not rendered doubtful, until it is tranſmitted through ſix witneſſes; for the deficiency of $\frac{9}{10}$ is 1. and 1) 9 (9 and $9\times\frac{7}{10}=6,3$.

632. If the original teſtimony of each of the ſucceeding be $\frac{8}{10}$, it requires only a ſucceſſion of three witneſſes to render it doubtful; for the deficiency is 2 and 2) 8 (4 and $4\times\frac{7}{10}=2,88$, and in effect $\frac{8}{10}\times\frac{8}{10}\times\frac{8}{10}=\frac{512}{1000}$.

633. If the credibility of the original teſtimony were $\frac{99}{100}$, it would become doubtful only

by

by 72 tranſmiſſions, and if it were $\frac{999}{1000}$, it would require a ſucceſſion of 699 witneſſes, to render the credibility doubtful.

634. If in the relation of *modern* facts, the original witneſs is not named or unknown, and the fact ſuch as ſhould not be preſumed, or is deſtitute of internal probability, it ſeems to me, that the ſucceeding relaters of the fact are not entitled to any credit.

635. But it ſeems otherwiſe as to the relaters of antient facts, as many antient teſtimonies are irrecoverably loſt, in which the original witneſs might have been mentioned.

636. If any of the ſucceſſive witneſſes are of dubious credibility, or through *credulity* unworthy of credit, the whole chain is interrupted, and the ſucceeding witneſſes deſtitute of ſupport.

637. If any of the ſucceſſive witneſſes ſhould vary from the preceding, or the original teſtimony, by the addition or ſubtraction of ſome circumſtances, yet this does not alter his credibility as to the ſubſtance of the fact. See No. 602, &c.

638. From the weakneſs and continual decreaſe of ſucceſſive teſtimony, ſome have inferred,

inferred, that even the object teſtified might become *dubious*, or even improbable; but falſely; the utmoſt that can be inferred is, that it may be left deſtitute of *external* teſtimonial proof, but its *internal probability* remains unaltered; and in many caſes, this is ſufficient to prove its exiſtence. This always happens, when the preſent ſtate of any object is evidently the conſequence of ſome paſt fact. Thus, if we had no human teſtimony of an univerſal deluge, the confuſed heaps of marine ſhells frequently found in all countries, on the ſummit of high mountains, as well as a few feet under the actual ſurface of the earth, would ſufficiently prove it. If we had no account of the conqueſt of Gaul by the Franks, or of Spain by the Moors, yet the mixture of Teutonic words in the modern French language, and of Arabic in the Spaniſh, would ſufficiently prove theſe facts, to ſay nothing of medals and other monuments.

639. The above obſervations relate to a *ſingle* chain or ſeries of ſucceſſive witneſſes; but if there were two or more *collateral* ſeries of ſucceſſive witneſſes of an indifferent, or

probable, or even an improbable fact, ſufficiently credible and independent on, and yet agreeing with each other, their credibility could never become dubious, from the improbability, that their agreement could ariſe from any thing elſe but the reality of the object teſtified. This improbability is as the product of their deficiencies, divided by the product of the chances favourable to their credit. Thus, if the credibility of the original witneſſes in each ſeries be $\frac{8}{10}$, and if there are two collateral ſeries of concordant witneſſes, the deficiency of each original witneſs will be two, and the chances favourable to the credit of each, eight; the improbability of their agreement from any other cauſe, but the reality of the object will be $\frac{2\times2}{8\times8}=\frac{4}{64}=\frac{1}{16}$; and if there be three ſuch ſeries, the improbability will be $\frac{1}{64}$, &c.

SECTION

SECTION XX.

OF WRITTEN TESTIMONIES.

640. Hitherto we have conſidered ſucceſſive teſtimonies in the abſtract, and the concluſions laid down relate chiefly to *oral* teſtimonies; but the credibility of teſtimonies committed to writing, is vaſtly ſtronger, becauſe not only the original witneſs has more leiſure to weigh his account, and render it more accurate, and his teſtimony may be preſerved, without any alteration, at leaſt one hundred years, and often three or four hundred years; but alſo, becauſe within that ſpace of time, innumerable copies of it may be taken, and if taken, it is ſcarce poſſible, that in the greater number of them, any material error can be committed, or at leaſt, that the ſame ſhould be found in all of them; if any ſuch be committed, it would eaſily be corrected by reference to the original.

641. Hence if the credibility of a written teſtimony be $\frac{9}{10}$, the credibility of the firſt

copy is not barely $\frac{9}{10}$ of that $\frac{9}{10}$, but approaches very nearly to the credibility of the firſt teſtimony; and the reaſon is, that the exiſtence of the firſt teſtimony being permanent for a number of years, its agreement with the copy may be frequently examined and aſcertained, and if important, the compariſon will undoubtedly be often made; whereas oral teſtimony being fugitive, its exiſtence can be proved only by the credibility of the ſecond witneſs, and the exiſtence of this, only by a third witneſs, &c. The credibility of the copy is, therefore, to be deduced from the probability of its agreement with the original, which in material points, except party zeal interferes, is indefinitely great.

642. If there are two or more original written teſtimonies, concordant in all material points, and copies are taken of each, and theſe copies are found to agree, at leaſt in ſubſtance, their credibility with reſpect to the object teſtified, is nearly equal to the concordant original teſtimonies: the ſame obſervation extends to all the ſucceſſive copies, and the more numerous they are, the more they ſtrengthen each other.

643. The

643. The true reaſon, why the copy of a deed, whoſe conformity with the original is well atteſted, is refuſed to be received as a proof in our courts of juſtice is, that withholding the original, when it can be produced, induces ſome ſuſpicion of fraud; for if the original be proved to be loſt, or accidentally deſtroyed, the production of a copy is allowed.

Of Illuſive Probability.

644. Under this head I comprehend every imaginary probability, derived from ſources that have no connexion with the reality of the object ſuppoſed probable, originating from *hope, fear, hatred,* or ſome other ſtrong paſſion. That ſuch illuſions ſhould exiſt, is indeed ſurpriſing, yet daily experience may fully convince us, that we moſt readily believe what we wiſh to be true; or, at leaſt, we believe it more firmly than we ſhould, if we were leſs intereſted in its truth, or had wiſhed it to be falſe. We find a degree of pleaſure, in contemplating the object and the reaſons favourable to its exiſtence, and of pain, in

contemplating thoſe that deſtroy this impreſſion. Hence, theſe laſt, are either overlooked, or ſlightly ſurveyed; the former of courſe prevail, and the object appears probable.

645. On the other hand, when a danger apprehended is inconſiderable, and our imagination alarmed, though its probability may be remote, or inconſiderable, fear collects, and attaches our attention to the unfavourable chances only; we become incapable of balancing them with the favourable, and the danger is conſequently magnified much above its real limits. Under the dominion, therefore, of intruding paſſions, we can form no true eſtimate of probability.*

* See 1 Search, p. 291, and 328; and Leland Deiſt. Writers, Letter XI. p. 176.

SECTION XXI.

OF THE POSSIBILITY OF DENOTING THE DEGREES OF PROBABILITY AND CREDIBILITY BY NUMBERS. RULES FOR THE NOTATION OF CREDIBILITIES, AND THE ADVANTAGES RESULTING FROM SUCH NOTATION.

646. It is allowed, that the chances on dice or cards, and conſequently the probability of any event relating to them, may be aſcertained with the greateſt accuracy, as the numbers, favourable and unfavourable, are accurately known; but it is thought by many, that the eſtimation of the events of common life, and of the credibility of witneſſes in numbers, is impoſſible; becauſe, we have no ſtandard meaſure, wherewith to compare them, no units, from whoſe repetition a number can ariſe; conſequently, that all preciſe eſtimation muſt be arbitrary, and therefore uſeleſs.

647. Nevertheleſs, it ſhould be obſerved, that all meaſures were originally arbitrary, and became fixed, only by convention and

agreement. Thus *a foot* is a conventional quantity, arbitrarily fixed upon, and without any determinate foundation in nature, and therefore different in different countries. The ſame may be ſaid of *weights*, and of meaſures of capacity, as *pints* or *gallons*; and of meaſures of qualities, as of *heat*, *cold*, *wet*, *dry*, &c.: in the ſame manner, probability and credibility are real, though inviſible quantities, of which there are different degrees, which have their foundation in nature; for probability is founded on the number of caſes in which an event happened, compared with the whole number in which it happened and failed, in circumſtances ſubſtantially the ſame. And in the ſame manner, credibility is grounded on the experience we have had, of the qualities of a witneſs, requiſite to render his teſtimony more or leſs credible. Thus, we every day ſay, that ſome events, ſome arguments, ſome opinions, are more probable than others; that one is *highly* probable, another *ſcarcely* probable, another *doubtful*, another *improbable*; and we are convinced, that the teſtimony of Bergman is more credible than that of Paracelſus, &c.

Still

Still it may be replied, " that of ſenſible quantities or qualities we may have ſenſible meaſures, but of inviſible quantities, ſuch as the different degrees of probability reſpecting human events, or of credibility, knowledge, integrity, &c. we can have no determinate meaſure, by which to eſtimate their inequality." Yet the contrary is well known; the ratio which the value of any thing bears to the value of any other thing, is an inviſible quantity, which is ſettled, merely by the eſtimation of the parties concerned; thus, the value of a horſe may be deemed *ſuperior* or *equivalent* to that of a certain number of cows or ſheep, &c. a number ſettled by eſtimation. For the convenience of all parties, this value is eſtimated by certain quantities of coin, and thus money becomes the ſtandard, to which all valuation is referred. Now, the different degrees of probability, are equally referable, and, in fact, are daily referred to that ſtandard, by inſurers, whether of lives, or houſes, or voyages, &c. grounded on experience of the number of times the event inſured has happened or failed, in a certain number of years. A jury may ſettle the

the degree in which they hold a witneſs credible, and this is better than yielding to a majority.

648. There are many quantities, the ratios of which, to other quantities, cannot be aſcertained, yet approximations thereto are highly uſeful. Thus the ratio of the diameter of a circle to its circumference, cannot be exactly ſtated, yet none will deny the utility of approximations towards it.

649. The merit of painters has been deduced from the degrees of excellence which they have ſeverally attained, in the different parts of that art, expreſſed in number, as *deſign*, *colouring*, *expreſſion*, and *compoſition*, multiplied into each other. See Mem. of the Roy. Acad. of Paris, for 1755.

650. The principal advantages ariſing from a ſpecific notation of the degrees of probability and credibility, are,

Firſt, that it fixes the vague diſtinctions which we naturally make of theſe degrees, renders them more preciſe, and thus enables us to deduce concluſions, otherwiſe unattainable. For inſtance, we may conclude that, in ſome caſes, the teſtimony of two doubtful witneſſes

is

is more credible than that of one witneſs of low credibility. See No. 590, &c. And that the opinions of two phyſicians or lawyers of inferior note, may poſſibly be preferable to that of one eminent in either of thoſe profeſſions. No. 618. And this obſervation may be extended to many caſes, that occur in common life, unleſs ſome paſſion or partiality interferes; for when that happens, no certain eſtimation of probability can be had.

Secondly, it enables us to ſtrike a balance betwixt oppoſite probabilities, or teſtimonies, and ſhew with preciſion, which of them is preponderant, and by how much.

Thirdly, as in a courſe of years we ourſelves change our opinions, calculation may ſhew us the preciſe weight of the proofs or cauſes, that induced the change.

651. Solidity of judgment conſiſts chiefly in the juſt eſtimation of probabilities, and when the requiſite *data* are known, it is ſeldom that any miſtake can occur; but in many caſes, theſe are difficultly procured.

652. To help to form an eſtimate of the credibility of witneſſes, whether known to us, or abſolutely unknown, I have formed the following

following ſcale; which, if judged defective, may be amended by others.

Unknown, and of the loweſt claſs	$\frac{12}{20}$
Ditto, ſworn	$\frac{14}{20}$
Unknown, but of ſuperior condition,	$\frac{14}{20}$
Ditto, ſworn	$\frac{15}{20}$
Known and credible	$\frac{15}{20}$
Ditto, ſworn	$\frac{16}{20}$
More credible	$\frac{16}{20}$
Sworn	$\frac{17}{20}$
More credible	$\frac{17}{20}$
Sworn	$\frac{18}{20}$
Still more credible	$\frac{18}{20}$
Sworn	$\frac{19}{20}$
Of the higheſt credibility	$\frac{19}{20}$

and this is not increaſed by an oath.

653. In aſſigning to any perſon a particular degree in this ſcale, it is plain, that regard ſhould be had to his age, education, rank in life, and general character, beſides the general qualifications mentioned No. 445, &c.

654. The

654. The credibility of the opinion of a profeſſional man, is in general as his repute or ſituation, if fairly obtained. Yet there are numerous exceptions to this rule. Many, of the higheſt merit, either through baſhfulneſs, or indolence, or contempt for certain artifices, have never acquired that celebrity, to which their acquirements entitled them. For inſtance, in the medical profeſſion, the late Dr. Black; and in the legal, Serjeant Hawkins, who was named, from his want of practice, the *briefleſs Serjeant.*

655. But the opinions of profeſſional men, can ſeldom be as credible as the teſtimony of a credible witneſs to a fact, and commonly only in very clear caſes, being for the moſt part conjectural. Hence I eſtimate the opinions of perſons of the higheſt repute, at from $\frac{16}{20}$ to $\frac{18}{20}$, and thoſe of lower repute, at from $\frac{13}{20}$ to $\frac{16}{20}$.

SECTION XXII.

OF THE PROBABILITY, MERIT, AND DEMERIT OF HUMAN ACTIONS.

656. When men are free from phyſical conſtraint or reſtraint, their actions are the reſults of the actual conſtitution of their minds, and of the general motives that influence the human will, modified by circumſtances peculiar to each caſe.

657. The actual conſtitution of the mind conſiſts in its previous diſpoſitions, ariſing, partly from natural temper, partly from education, partly from preconceived opinions, habits, company, age, obſervation, and experience.

658. The motives that generally influence the will, are natural inſtinct and paſſions, whether ſelfiſh or moral, benevolent or malevolent; their energies are various, in different individuals, and in all modified by the preſence or diſtance of their objects, and the facility, or difficulty, or danger to be encountered

tered in attaining them. Diſtant views are, indeed, generally attributed to *reaſon*, in contradiſtinſtion to *paſſion*; yet, in reality, reaſon does no more than diſcover the importance of the object, and the means of purſuing or avoiding it; the true principle or motive of its purſuit or avoidance, is the paſſion it excites.

659. Motives of any particular tendency are often ſo complicated with thoſe of an oppoſite tendency, that the agent himſelf heſitates, which of them he ſhall obey; much more muſt thoſe, who attempt to conjecture what his determination ſhall be.

660. However, if the actual conſtitution of the mind, and the general habitual motives of its actions were known, the reſulting determination, might in moſt caſes be inferred, to a great degree of probability. As on a die, having 99 faces marked with an ace, and only one with a deuce, we muſt judge the turning up of an ace moſt probable.

661. This almoſt conſtant connexion of human actions, with particular known motives, has been, by many, confounded with neceſſity, but, in my opinion, very unjuſtly; for

for a being cannot be deemed to act through neceſſity, whoſe choice is, in all caſes, directed by what he himſelf thinks beſt, while there is ſcarce any motive, which may not, in ſome point of view, be thought beſt; or, if to him apparently equal, the very neceſſity of making ſome choice, is ſufficient to chuſe in conformity to one or other.

662. And though an abſolute certainty of the determination be unattainable by any but Him who reads all hearts, yet in ſimple caſes, experience and obſervation inform us, that a very high degree of probability may be obtained.

663. As human actions may be traced from a knowledge of the mental conſtitution of the agent, and of the motives by which he is generally governed, ſo the motives may themſelves be diſcovered, by a knowledge of the conſtitution of his mind, and of the actions produced by him; ſo that any two of theſe being known, the third may be fairly inferred.

664. The merit of an action conſiſts in its conformity to moral law, in oppoſition to all occurring difficulties, and under the guidance of proper motives.

665. Demerit

665. Demerit, on the contrary, or guilt, ariſes from a wilful breach of that law, through the influence of motives, of whoſe malignity the agent is conſcious, or may and ought to diſcern.

666. Hence it frequently happens, that as the merit or demerit of actions depend chiefly on the motives, from whence they originate, not only the action, but alſo the previous mental conſtitution or character of the agent, and the circumjacent circumſtances, ſhould be fully conſidered, before the intention or motive, and conſequently his guilt or innocence, can be determined.

667. In many caſes, however, the act itſelf naturally ſuggeſts the probability of a depraved motive, and conſtitution of mind; and conſequently requires a juſtification on the part of the agent, as may thus be ſhewn.

668. *Guilt* conſiſts in a wilful tranſgreſſion of a known moral law; a law in moſt caſes known to all mankind; its knowledge in particular caſes, may therefore be preſumed, that is aſſumed as *certain*, until the contrary appears. In the ſame manner, human actions, being ſeldom the effects of conſtraint, muſt

be deemed *wilful*, until proved not to have been ſo. Now, all actions proceeding from the will of an agent duly informed, being the reſults of ſome motives, thoſe motives that induce a wilful tranſgreſſion of the moral law, muſt themſelves be incompatible with that law, or at leaſt be deemed ſo, until the contrary appears.

This ſubject is well illuſtrated by Mr. Capel Lofft, in his Law of Evidence, vol. ii. p. 879, 4th edition; which, as *his* illuſtration relates to a matter of the greateſt importance, and of univerſal concern, I ſhall here ſet it down in his own words.

"Prima-facie, nothing in the general conſideration of the fact at large, can juſtify one man's killing another, under the protection of the ſame laws.

"The malice therefore, is in the fact itſelf, without juſtifiable cauſe ſhewn, or a legal excuſe; and this will be according to the circumſtances proved, if 'the evidence is of killing without provocation,' (and it lies on the defendant to ſhew ſuch provocation as the law allows in excuſe,) no particular malice, as we have ſeen, needs to be proved;

proved; but, if the defendant prove a provocation by aſſault for inſtance, of the deceaſed, the preſumption againſt him from the act of killing, is now *rebutted*, until the proſecutor ſhew that ſuch provocation was ſought maliciouſly as a colour; ſo where the evidence tends to prove 'the killing an officer,' or that the party 'who killed,' was committing an unlawful act, and that death enſued to ſomebody on that action; or, 'if the act' appears deliberate, 'naturally' tending to the perſonal hurt of any one, 'and preſumably to death;' in theſe 'ſeveral' caſes the law implies the circumſtance of malice, 'diſprovable by various evidence, according to the general or ſpecial facts which ſupport it;' and this implication of the law is in defence of mankind: for all *malice* ('which in the legal ſenſe is *a diſpoſition to do an unlawful act*,') is a ſecret quality of the mind: and it is the fact only that appears, and can be brought in proof; and it is from the circumſtance of the fact, that a man muſt collect the offence of the mind, 'and the legal degrees of that offence:' now, when a man kills another, that is, *primâ facie*, ſo ill-natured and

bloody an action, that it is preſumed to be malicious, ' till the contrary be proved;' and therefore, the ' apparent' offender, to cover himſelf from the ſuppoſition that the law has made in tenderneſs to mankind, muſt ſhew ſome ' juſt neceſſity,' ſome ' provocation,' or ſome accident, in " juſtification, extenuation, or excuſe of the fact;' or, if he cannot thus mollify or excuſe the action, the ſuppoſition of the law remains, and he ought to be puniſhed with certain death."

CHAPTER VIII.

SECTION I.

OF AXIOMS, MAXIMS, AND APHORISMS.

669. *Axioms* are univerſal propoſitions, whoſe truth, when the terms which expreſs them are underſtood, is ſelf evident.

Thus the axiom, *whatever is, is,* every one who underſtands the import of the words *whatſoever,* and *is,* inſtantly perceives to be true;

true; but theſe terms being abſtract, their ſignification is not immediately perceived by children, nor by perſons in a ſtate of mental imbecility.

670. Mr. Locke, lib. iv. chap. vii. ſect. 10, is partly right in denying, that they are the principles or foundations of our knowledge; for, from many of them, no concluſion can be drawn; as, for inſtance, from that here quoted; yet there are others, from which concluſions may fairly be deduced. Thus, if a definition of any being be agreed upon, properties included in, or excluded from that definition, may juſtly be inferred or denied, as the caſe may be, from the principle that *it is impoſſible to be and not to be at the ſame time, and in the ſame reſpect.* Thus, if it is allowed that *God* may be defined to be a being, infinitely perfect, and that *veracity* is a perfection, we muſt conclude, that veracity is aſcribable to God, otherwiſe he would not be infinitely perfect, and conſequently *would be and not be* God, which is impoſſible. In the ſame manner, the unity of God may be proved, and thus alſo all imperfections are excluded from his nature.

671. In *geometry*, frequent uſe is made of axioms; Euclid lays down ſeveral, and on them reſts the final proof of his demonſtrations.

Care muſt be taken, that axioms be properly underſtood. Thus, that *the whole is equal to its parts collectively taken*, is evident, when it is underſtood that none of theſe parts include the other, as is the caſe in continued quantity; but if any of theſe parts include the other, (as in numerals) it is falſe; thus 7 and 8 are parts of 12, but as 8 includes 7, theſe numbers, taken together, exceed 12, ſince they amount to 15.

672. *Maxims* and *aphoriſms*, are alſo general truths, but not ſelf evident. In *experimental* ſciences, they are ſummaries, or final reſults, from numerous facts, and are highly uſeful, as from them, ſeveral new facts may often be deduced by analogy. In *ſpeculative* ſciences, as metaphyſics, theology, morality, juriſprudence, logick, &c. they are either the principles, or the immediate and moſt general inferences, from the principles of thoſe ſciences. Thus in *theology*, from the principle, that veracity is one of the attributes of God,

God, it is inferred, that whatever God reveals is true; and, that *any propoſition confirmed by miracles, is either mediately or immediately*, (as the caſe may be) *revealed by God*; on theſe maxims, both the Jewiſh and Chriſtian religions are founded. So in *logick*, that *things that are in any reſpect the ſame with, or equal to another, are in the ſame reſpects the ſame with, or equal to each other*, is a maxim, on which all reaſoning is founded; and demonſtrations *ab abſurdo*, on the maxim that of two contradictory propoſitions, if one be falſe, the other muſt be true. So in *chronology*, and *criticiſm*, certain *canons* or maxims are eſtabliſhed, by the application of which, many facts are aſcertained, or rejected, &c.

673, Locke alſo well obſerves, that axioms and maxims being well underſtood, and rendered familiar, are very convenient in ratifying and as it were ſealing the conviction of ſome particular truths, which are ſhewn to agree with them, and are leſs familiar, and in fact not originally derived from them.*

SECTION

* In the 11th ſection of the chapter above quoted, he uſes the word *revelation* in a new, and therefore improper ſenſe, ſaying, that when we find out an idea, by whoſe

SECTION II.

OF SOME GENERAL DEFINITIONS.

674. To *underſtand*, is to diſcern a relation; thus to underſtand words, or terms, or propoſitions, is to diſcern their ſignification. To underſtand a language, is to diſcern the ſignification of its words and idioms. A relation is *perfectly* diſcerned, when its ſubject, term, and foundation, are known; but *imperfectly*, if only the ſubject and term, or only the ſubject and foundation are known.

675. To *know* a thing, or the truth of a propoſition, is to judge it on proper motives to be true, or to be convinced of its truth. To know a ſcience, is to diſcern the truths, and the foundations of thoſe truths, which it

intervention the connexion of two others is diſcovered, this is a *revelation* from God, by the *voice of reaſon*. What he adds of revelation by the voice of the *ſpirit*, is mere cant, which, from the bigotry of the times, he was obliged to chime with; and what he ſays of reaſon, being a revelation, he contradicts, lib. iv. chap. xviii. ſec. 2.

contains,

contains. Thus, to know a fact, is to judge if it be true, either on the teſtimony of our ſenſes, as having witneſſed it, or by conſciouſneſs or demonſtration, or on other indubitable teſtimony; thus I know my own perceptions by conſciouſneſs, the truth of the propoſitions of Euclid by demonſtration, and that there was ſuch a king as William the Conqueror, ſuch an emperor as Auguſtus, &c. by indubitable teſtimony. Hence knowledge and certainty are nearly the ſame; knowledge denoting judgment or conviction, and certainty the reliance or aſſurance of the truth of that judgment. However, knowledge founded on any foreign teſtimony is *indirect*, and more commonly called *belief*; yet, may I not ſay, *I know the ſun roſe many years before I was born*, or that I had an anceſtor 2000 years ago?

676. To *conceive* a thing, is to form an idea or an adequate notion of it. Thus if any thing be explained or deſcribed to me, if I can form an idea or adequate notion of it, I may ſay *I conceive it*. So if I read a deſcription of London, and from that deſcription I can form an idea of it, I may ſay I conceive what ſort of town it is; but I cannot

cannot conceive a triangle, one of whoſe ſides is equal to the other two, for I can form no idea of ſuch a triangle.

677. Theſe three terms are frequently uſed indiſcriminately, in common language, and even in philoſophical diſquiſitions; which occaſions much confuſion. Thus a perſon is ſaid to *know* a language; whereas, it would be more proper to ſay, he *underſtands* a language. Some propoſitions may be imperfectly underſtood, which can by no means be conceived. Thus when it is ſaid, that the world was created, the propoſition may be underſtood, otherwiſe it could not be affirmed; but it cannot be conceived, as of the power by which it was effected, no adequate notion can be formed.

SECTION III.

OF GENERAL LOGICAL AND PHILOSOPHICAL MAXIMS.

678. *All terms are more or leſs intelligible, whoſe ſignification is more or leſs perfectly known.* Thus, men blind from their nativity, may

may nevertheleſs form ſome notion, though not an idea, of light and colours; ſince Drs. Saunderſon and Moys, who were thus circumſtanced, have been enabled to give lectures on opticks, and certainly knew more of the properties of light and colours, than the generality of mankind, See 370. Thus, terms denoting *ſenſible* objects, or other ſtates of the mind, known only by *conſciouſneſs*, or by *intimate conviction and reaſon*, as the exiſtence of our own mind; or by *analogy*, as the exiſtence of other minds; or of *privations*, as darkneſs, blindneſs, ſilence; or of *negations*, as impoſſibility, non-exiſtence, annihilation, nihility or nothing: or complex terms, that denote an *unknown object, together with a known relation to a known object*, or to an unknown ſtate of a known object, are alſo intelligible; thus $x+1=\sqrt[3]{2}$. Here x^3 is an unknown quantity, and $x+1$ is a complex term: $=$ denotes the relation to the known quantity 2, as does the cubic root the unknown amount of a particular intelligible ſtate of that complex term, or terms that denote the *unknown cauſes of known effects*, as *force, attraction, electrical* or *magnetic powers*, &c.

679. *Terms*

679. *Terms that denote a known fact, though connected with an unknown cauſe or circumſtances, are perfectly intelligible,* as nutrition, vegetation, ſecretion, electricity, magnetiſm, &c.

For we cannot deny *general and well-known* facts, of which there muſt be ſome mode of cauſation, (nor conſequently deny underſtanding the meaning of the terms that expreſs ſuch facts, together with their unknown mode of cauſation,) merely becauſe we are ignorant of the immediate or general cauſes of thoſe facts; or how, or in what manner, or by what degrees, or for what end, they operate; or of the preceding or concomitant circumſtances. An American ſavage cannot underſtand how Europeans convey their thoughts to one another by writing, and yet many of thoſe ſavages are well acquainted with that fact.

680. *Complex terms that expreſs what is evidently repugnant,* (as a round ſquare,) are *unintelligible*; for the ſignification of the one is incompatible with the ſignification of the other. Such terms may be called *repugnant.* (So Berkeley, Min. Philoſ. Dialogue 7, ſec. vi.) and Mem. Berl. 1789, 429.

681. *Simple*

681. *Simple or complex terms, to which an unintelligible ſignification is affixed, may alſo be denominated unintelligible*; thus the *internal mould* of Buffon, is a complex unintelligible term. So alſo the *Archeus* of Stahl, and the *ſubſtantial forms* of the peripatetics.

Such terms may alſo be called *ſenſeleſs*, and the *potentia animaſtica* of Borelli, lib. ii. de vi percuſſionis. See 1 Baxter 23.

682. *Complex terms that denote ſomewhat phyſically impoſſible, are intelligible, but not thoſe that expreſs a metaphyſical or mathematical impoſſibility.* Thus we underſtand what is meant by *perpetual motion*, or the *philoſophers ſtone*; for the impoſſibility of theſe ariſes merely from their inconſiſtency with the laws of corporeal nature, which the Author of nature may ſuſpend or vary. But metaphyſical or mathematical impoſſibilities, imply a contradiction; ſuch as a *mortal and unjuſt God*, a *triangle, one of whoſe ſides is as long as the other two*, &c.; theſe alſo may be called *repugnant*.

683. *Terms to which no ſignification, whether direct, or analogical, or relative, is affixed, are of courſe*

courſe unintelligible, and may be called ſenſeleſs, as *Blytre.*

684. *A propoſition, whoſe extremes (that is, whoſe ſubject and predicate) are intelligible, may be either true or falſe, intelligible, or unintelligible.* Thus a propoſition aſſerting that men are mortal, is true, though they may be rendered immortal by Divine Power; and ſo a propoſition aſſerting a natural or phyſical impoſſibility is falſe; as that a dead man may be reſtored to life, by barely commanding him to riſe; though, by ſupernatural power, this may be effected: but a propoſition aſſerting what is clearly diſcerned, to be either metaphyſically or mathematically *impoſſible,* ſeems to me to be, not only inconceivable, but alſo unintelligible, as that *God is unjuſt,* or that *he is the author of moral evil.* Though the terms expreſſing the ſubject and predicate, are perfectly intelligible; and the reaſon is, that their connexion cannot be underſtood, as they exclude, and are incompatible with each other; and their connexion being utterly unintelligible, the propoſition muſt be ſo too; as to an affirmative propoſition, a copula or connexion is eſſentially requiſite: without that, it is not

a propoſition, and an unintelligible connexion is the ſame as none at all. So in mathematics, the aſſertions that *a part is equal to the whole*, or that *if from equals you take equals, the remainder ſhall be unequal*, are unintelligible; but it is ſaid, an unintelligible propoſition can neither be affirmed nor denied; whereas, the above aſſertions are denied. The anſwer is obvious; a propoſition unintelligible, becauſe either its ſubject or predicate, or both, are ſenſeleſs, cannot be affirmed nor denied; becauſe ſenſeleſs terms are incapable of any relation, being mere empty ſounds, and therefore *ſenſeleſs*, as at No. 683. But propoſitions that are unintelligible, becauſe one or other, or both, their extremes are repugnant, are not only falſe, as many perfectly intelligible propoſitions are, but can by no poſſibility be otherwiſe than falſe, and conſequently can and muſt be denied. Their falſehood, then, is perfectly intelligible, and therefore may be affirmed; in this ſenſe, their meaning is perfectly intelligible; for falſehood is all their meaning imports; and, for the ſame reaſon, propoſitions, whoſe copula is impoſſible, muſt be denied.

685. *Where*

685. *Where the extremes of a propoſition are intelligible, and are not evidently incompatible with each other, the propoſition may be true, and conſequently on proper proof may be credited, though the relation that connects the extremes, is not underſtood, or imperfectly underſtood.* Thus in the propoſition, aſſerting that the ſquare of the hypothenuſe is equal to the ſum of the ſquares of the other two ſides, the terms *ſquare of the hypothenuſe*, and thoſe of the other two ſides that form the ſubject of which equality is predicated, are well underſtood by every mathematician, though he may forget the demonſtration, and conſequently *not actually diſcern* the connecting relation of thoſe extremes; ſo alſo another perſon, who has never ſeen this propoſition demonſtrated, but who underſtands the import of the terms, may yet believe, upon the teſtimony of all mathematicians, that it is true, though he does not *diſcern* the relation of equality attributed to theſe ſquares, nor conſequently the truth of the propoſition. Nay, in ſuch caſe, though the relation be indiſcernible by all human underſtandings, yet, on proper proof, its exiſtence may be believed.

Thus

Thus in the propoſition *ſome being is unoriginated*, the term *being* is intelligible; ſo alſo is the predicate *unoriginated*; and though the intrinſic foundation of the relation that connects them, is imperfectly intelligible, yet we know ſuch relation to exiſt; for the truth of the propoſition has been demonſtrated *a priori* and indirectly by Dr. Hamilton, who ſhews that a propoſition contradicting it, is neceſſarily falſe, ſince if no being was unoriginated, no being whatſoever could now exiſt; and it has evermore been demonſtrated *a poſteriori*; but the origination of all created beings is perfectly intelligible, as they are the terms of the relation of infinite power, which requires no ſubject to act upon, otherwiſe it would not be infinite; conſequently *creation* is perfectly intelligible, though inconceivable, as it is not analogous to any of thoſe effects with which we are acquainted.

685. But a fact or doctrine inconceivable, and alſo deſtitute of proof, cannot be admitted. (Proofs may be either direct or indirect), thus the cauſation or power of any creature cannot be admitted, being unintelligible and deſtitute of proof.

686. *A propoſition not underſtood, and conſequently while ſo unintelligible, by the perſon to whom it is propoſed, cannot be directly believed, or denied by him, but it may be believed or rejected by him indirectly, inferentially, that is, on proper extrinſic proof*; for truth conſiſts in the reality of the relation betwixt the ſubject and attribute of a propoſition. Then if the ſignification of neither of them is known, it is plain their relation to each other cannot be diſcerned, nor conſequently can the truth of the propoſition be directly and explicitly believed. Yet where ſufficient *extrinſic* reaſons are adduced, for believing that the terms are intelligible to others, and not mere empty ſounds, and that a relation betwixt them does exiſt, the propoſition may be aſſented to, and thus may indirectly, and inferentially be believed. Thus, as Dr. Watts remarks,* if a ſkilful mathematician ſhould tell a ploughman that *an ellipſis is made by a ſection of a cone*, the peaſant may believe him, though he does not underſtand what is meant by a *cone* or an *ellipſis*. Thus alſo, an illiterate perſon who

* P. 213.

cannot

cannot read the Bible, may yet believe it to be true, as moſt Chriſtians did, before it was tranſlated into a language they underſtood. Thus, Newton's Principia are believed to be true by thouſands, who do not underſtand the various propoſitions they contain. This, however, is improperly called a belief of an unintelligible propoſition; it is rather an admiſſion of the unintelligible propoſition, grounded on a belief, that the teſtimony of the perſons who aſſert its truth may be relied on; much leſs can ſuch belief be called knowledge.* See No. 368, and 370.

687. *Hence* (viz. from No. 684 to 685), *the* MERE *or bare unintelligibility of a propoſition, whoſe extremes are not evidently repugnant, is no proof either of its truth, or of its falſehood.* For ſome ſuch propoſitions are true; as that *the world was formed by an unoriginated being*, which is only imperfectly intelligible, the *intrinſic* foundation of the relation, connecting *being* with *unorigination*, being unknown. And others are falſe, as that the *world was formed by an unintelligent being*. For, as the *world*

* So Locke, lib. iv. Chap. xv. ſec. 1.

includes intelligence, and the predicate excludes it, the relation of cauſation implied by the copula *formed,* is unintelligible, and deſtitute of any foundation, either intrinſic or extrinſic.* Therefore, in ſuch caſes we can diſtinguiſh a true from a falſe propoſition, only by the proofs which furniſh a foundation for the relation; if the propoſition is deduced from known and certain facts, or from premiſes, whoſe truth is certain, it muſt be true, and conſequently believed; but without indubitable proofs, (there being in that caſe no foundation for the relation of the ſubject and predicate,) its truth cannot be diſcerned, and conſequently it cannot be believed.

688. *Where the terms of a propoſition are* INTELLIGIBLE IN THEIR LITERAL SENSE, *but in that ſenſe, repugnant to the nature of the being of whom they are affirmed, and yet are demonſtrably true, in a ſenſe bearing ſome analogy to the literal, though ſtrictly inconceivable by us, they muſt be underſtood* METAPHORICALLY;

* It is not ſufficient to call it *inconceivable,* for the formation of the world, even by an intelligent cauſe, is inconceivable, for want of any analogy, but not unintelligible.

their

their real mode of exiſtence evidently lies beyond the extent of our faculties.

Thus many of our own mere *intellectual* ſtates or operations, are expreſſed by terms borrowed from the *corporeal*, and conſequently intelligible only by bearing ſome analogy to theſe laſt; thus we ſay, we *apprehend*, we *comprehend*, we *conceive*, we *judge*, (from judicare, whoſe etymology is juſdicere,) we *reflect*. So the words *evidence*, *certainty*, from *cernere* to decree. But of the real manner or mode in which theſe mental operations are formed, we can form no notion.

So alſo we muſt allow, that God poſſeſſes *knowledge*, and *foreknowledge*; for we ourſelves know, and even foreknow, many things; but his mode of knowing or foreknowing, muſt differ from ours, and agree only in the effect, and is in that ſenſe, analogous to ours; but, in reality, infinitely more perfect, and the mode abſolutely inconceivable; ſo that to ſay he can know future events, only through the medium of their cauſes, as we do, ſeems rash and preſumptuous. Can we conceive how God knows *pain*? or even any ſenſation, which he can neither feel, nor form an idea

of, in the ſenſe in which we underſtand thoſe words?

689. Hence, we may believe what is certain, though connected with ſomething inconceivable, as Deſcartes long ſince remarked, *abſurdum enim eſſet, propterea quod non comprehendimus unam rem, quam ſcimus ex natura ſua nobis eſſe debere incomprehenſibilem, de alia dubitare, quam intime comprehendimus atque apud nos met ipſos experimur.* Princip. part. i. ſec. xli.

690. *Hence objections to the* MODE *of exiſtence of an object known to exiſt, but not to the object itſelf, if any ſuch be, may be* INSOLUBLE, *becauſe the mode is inexplicable, but furniſh no proof of the falſehood of ſome inaſſignable mode of exiſtence; they merely prove, that to conceive ſuch mode, exceeds the limits of our actual knowledge, or even, in ſome caſes, exceeds the limits of our faculties.*

691. *To explain a thing, is to ſhew its conformity or analogy to ſome known truth; to explain a phenomenon, is to ſhew its conformity to ſome general law, or to aſſign a cauſe or a ſeries of ſubordinate cauſes, of which we can form a clear and preciſe idea or notion, that contribute*

to

to its production. So Dr. Black explained the effervescence arising during the solution of limestone and of alkalies, and the causticity of lime, &c.; Priestly, the composition of the atmosphere; Cavendish, the formation of water, and of nitrous acid; Scheele, the composition of vol. alkali, &c.; Bergman, the formation of sulphurated waters; Lavoisier, the solution of metals, &c. So to explain the mechanism of a clock, the mechanist begins by shewing, how the weights pull round the main wheel, and how that by its teeth catches hold of the next wheel, &c. and thus exhibits the series of subordinate causes leading to the motion of the hammer, which strikes the bell, and the motions of the hour and minute hands and pendulum. So to explain a word or a sign, is to shew its signification in intelligible terms.

692. *Neither truth nor evidence admit of any degrees*; for truth consists in a perfect conformity, either of a sign to the thing signified, or of a copy to its original, and therefore is incompatible with any excess or defect. So evidence consists in a full and accurate discernment of the relation betwixt the subject

and the predicate of a propoſition, or, that no ſuch relation is diſcerned or diſcernible, if the propoſition is evidently falſe. But *falſehood* and *probability* are ſuſceptible of many degrees, the former deviating more or leſs from truth, and the latter more or leſs diſtant from certainty.

693. *Neither does metaphyſical or phyſical neceſſity admit of degrees*; for what is metaphyſically neceſſary, is abſolutely impoſſible to be otherwiſe, and impoſſibility evidently has no degrees. What is phyſically neceſſary, cannot, conſiſtently with the eſtabliſhed laws of nature, be altered, or happen otherwiſe than conformably to them.

694. *But moral neceſſity ſometimes, though rarely, admits of degrees:* moral neceſſity is only a very high degree of probability, as that of a million to one, and therefore admits of ſome, but comparatively exceeding few, exceptions. But in its *ſupreme degree*, it coincides with metaphyſical neceſſity; thus a motive of ſome kind is neceſſary to all acts of the will. No man can prefer actual pain to actual or future pleaſure, &c.

695. *Conditional* neceſſity is that, which is aſſerted

aſſerted to exiſt in the relation of means to an end, ſuppoſing the attainment of that end to be intended. It is commonly of the moral kind, and ſuſceptible of degrees.

696. *But liberty is ſuſceptible of many degrees*, as the difficulties of making a choice are more or leſs preſſing.

697. *Every judgment founded on a real relation betwixt its ſubject and predicate, if the judgment be affirmative, or on the impoſſibility of ſuch relations, if the judgment be negative, muſt be true.*

For the truth of a propoſition (and a judgment is a mental propoſition,) conſiſts in the agreement of its extremes with each other, if the judgment be affirmative; or in the excluſion of ſuch agreement, if the judgment be negative: now this agreement is *real*, when it is demonſtrated, or ſelf-evident, or certain; and ſo alſo is its abſence, when it is neither demonſtrated nor ſelf-evident; and ſtill more ſo if, on the contrary, ſuch relation is excluded, or proved to be impoſſible. But, though the reality of a relation be not evident, yet the exiſtence of ſuch relation may be probable.

698. *Partial, or inadequate ideas or notions*

of

of any object, furniſh a ſufficient foundation for reaſoning, if the concluſions inferred from them extend no further than theſe ideas or notions, or their neceſſary conſequences.

Thus, in *mathematics*, we may reaſon upon ſome of the properties of *figures*, without knowing all their properties, or even conſidering them, if they be known. So, in *natural ſciences*, we may reaſon on ſome of the properties of bodies, though we cannot be ſaid, in any inſtance, to know them all: for inſtance, we can reaſon on the gravity and elaſticity of the atmoſphere, though we are far from knowing all its properties. So in *metaphyſics*, though our notions of the human ſoul are partial and inadequate; for the capacity of *perceiving*, and the powers of judging and *acting*, are the only with which we are acquainted; yet from theſe we infer its immortality, &c. So though we know but few of the divine properties, yet, on theſe which we do know, we may reaſon accurately.

699. But to morality, juriſprudence, and politics, this maxim is not always applicable; for to reaſon accurately on *particular* queſtions relative to theſe ſciences, as different circumſtances

ſtances may alter the rectitude of the deciſion, it is neceſſary that every ſuch circumſtance ſhould be weighed and conſidered.

700. *Things that are in any reſpect identified with a third thing, are in that ſame reſpect identified with each other.*

Thus, a thing appearing in different ſtates, frequently aſſumes different names, though in each of thoſe ſtates it is eſſentially the ſame; for inſtance, ſome inſects appear ſucceſſively in three or four different ſtates, and in each differ ſo much in external appearance, as to be denoted by different names, as *caterpillars*, *chryſalis*, and winged or *papillions*. The caterpillar is the ſame animal as the chryſalis, the papillion is alſo the ſame animal as the chryſalis, therefore, the caterpillar and the papillion are the ſame animal. So water is ſuſceptible of three ſtates; firſt, that of *liquidity*, which in our climate is its common ſtate; ſecond, that of *ice*; and third, that of *vapour*: now, as water is eſſentially compounded of hydrogen and oxygen, and ſince in the ſtate of ice it retains the ſame compoſition, and ſince vapour alſo retains the ſame compoſition,

it

it follows, that in that reſpect, ice, water, and vapour are the ſame thing.

701. *Things whoſe phyſical, metaphyſical, or moral properties, are in any reſpect ſimilar to thoſe of a third, are, as to thoſe properties, ſimilar to each other.* Thus, different bodies having the ſame weight as a third body have the ſame weight with each other, and equality admits of no degrees, as is evident. But qualities, as colours, heat, cold, &c. may be ſaid to be ſimilar, though differing in degree. Thus water heated to 200 degrees, and water heated to 212 degrees, are both called hot.

702. *But things whoſe relations are ſimilar to the relations of a third thing, do not therefore bear a ſimilar relation one* TO *the other, but rather relations ſimilar to the relations* OF *each other.* Thus, if *A* and *B* are both fathers, and in that reſpect reſemble *C*, it does not follow that *A* is father to *B*, or *B* father to *A*; for not only the ſubjects of each relation are different, but the terms alſo, and conſequently it is impoſſible that the ſubject of one ſhould be the term of the other. It is in the *foundation* only of the relation, that the three relations

relations agree, or are ſimilar to each other.

703. Nay, if two objects bear ſimilar relations *to* a third object, as the term of each of them, it cannot follow that either of them ſhould bear a ſimilar to the other, but rather that the relation of one of them to this term, is ſimilar to the relation of the other, *to* this ſame term; thus, they agree not only in the foundation, but alſo in the term.

Thus, if *A* is ſubject to *B*, and *C* alſo ſubject to *B*, it does not follow that either *A* or *C* are ſubject to each other, as is evident.

704. *Ratios or proportions, ſaid to be ſimilar to each other, are in fact not merely ſimilar, but exactly the ſame in each caſe, the one being conſtantly reducible to the other.* Thus, the ratio of two to four, is exactly the ſame as that of 6 to 12, or of 2000 to 4000.

705. *Two things are not the ſame, but ſome how diſtinguiſhable when what can be affirmed of the one, may be denied of the other.*

706. *A propoſition is neceſſarily true, if a propoſition that contradicts it is neceſſarily falſe, and* VICE VERSA. Hence, two truths can never contradict each other.

706. *Many*

706. *Many ſlight probabilities concurring, are equivalent to a ſtrong probability.* Thus, many farthing candles burning together, may give as ſtrong a light as a thicker candle.

707. By *action* I underſtand, that diſpoſition of a being, by whoſe immediate intervention, the exiſtence or deſtruction of another being, or any change in the ſtate of a being, has enſued. To act, therefore, is to intervene in procuring the exiſtence or deſtruction of, or change in, another being, or in one's own.

708. The ſubſtance in which this diſpoſition exiſts, is called an *agent*.

709. A being, therefore, by whoſe immediate action another being exiſts, or is deſtroyed, or altered, is ſaid to have *produced it*, and is called its *efficient cauſe*, or ſimply its *cauſe*, or the cauſe of its deſtruction, or alteration, as the caſe may be. And even the *end, reaſon, occaſion, condition, model*, or *inſtrument* of the action of an efficient cauſe, as they contribute, though remotely, to the exiſtence of the effect produced, are frequently called its cauſes.

710. *Cauſation*, denotes the relation which has connected a cauſe with its effect; the foundation

foundation of this relation is the action of the cauſe. Its ſubject is the cauſe itſelf, and its term, is the effect produced.

711. By *change* I underſtand a ſucceſſion of ſtates.

712. *Every being that exiſts, except one, has had a cauſe.* This is abundantly proved by Dr. Clarke, Mr. Locke, Dr. Hamilton, and many others, in treating of the exiſtence of God.

713. *Every being is neceſſarily prior to that being which is its effect.* For, if they be ſuppoſed contemporaneous, they muſt have obtained their exiſtence together, at one and the ſame inſtant, and conſequently one of them cannot be ſuppoſed to have received it from the other. Thus, if the ſun be ſuppoſed to have been always luminous, the firſt rays muſt have been created with it, though in the ſubſequent inſtants, light (according to the received opinions,) may have been emitted from it.

714. *But a being conſidered as a* CAUSE, *muſt in that reſpect be contemporaneous with its effect.*

For, conſidered as a cauſe, it bears a relation

tion to its effect, ſince it cannot be denominated a *cauſe*, until it has produced its *effect*, which is its term. A relation without a term, cannot exiſt. A man cannot be called a father until he has had a child.

715. Hence the diſtinction of priority of nature, and priority of time, is unfounded.

716. Hence alſo, every cauſe muſt be diſtinguiſhed from its effect, either phyſically, or modally.

717. *Natural or ſecondary cauſes, as they are commonly called, are in fact not the* CAUSES *but the* SIGNS *of the various changes which they precede, and which on that account are deemed by many to be effected by them; whereas, the ſole efficient cauſe of theſe changes, is the ſupreme Author of nature himſelf.*

718. The order in which they follow each other, and the diſtinct or different appearances they exhibit, in each particular caſe, and, in different ſubjects, is conſtant and uniform in ſimilar circumſtances; and thus bearing every character of a fixed conſtitution, they are neceſſarily deemed the reſults of general laws by which they are regulated.

719. That they are the *ſigns* of the changes they

they precede, is certain, for, when once their connexion with theſe changes is known, and a ſimilarity of ſubject and circumſtances is obſerved, theſe changes may with certainty be predicted; on this knowledge, all the proceſſes of all arts are founded. But, that they cannot be deemed the cauſes of any change in the ſtrict ſenſe of that appellation, is equally apparent; for to ſuppoſe them *cauſes*, we muſt ſuppoſe them to poſſeſs *power*, or, in other words, that power is one of their properties. Now, that power ſhould be a phyſical property of any body, is both inconceivable and unneceſſary; for all the real properties of bodies, in every other caſe, and, indeed, eſſentially, are ſuch as may, by poſſibility at leaſt, be ſuppoſed perceptible by our ſenſes; but power, being an incorporeal or metaphyſical property, can in no conceivable caſe be an object of any of our ſenſes. Hence, neither Sir Iſaac Newton, nor the moſt enlightened of his followers, have conſidered attraction as an inherent property, nor an efficient cauſe, but rather as the unknown principle of the tendency of bodies to each other. Now, an inconceivable property ſhould never be ad-

mitted without neceſſity, and here the admiſſion of ſuch a property is totally unneceſſary, as the exertion of divine power, regulated by eſtabliſhed laws, adapted to every caſe, is fully ſufficient to anſwer the purpoſes of general or particular inherent powers.

720. Men alſo have a dominion over theſe changes. Of their own volitions, they are the real and efficient cauſes, but to theſe volitions a limited power over their own bodies, is generally annexed; by the motion of their own bodies, they can alter the ſtates of other bodies; but the changes ariſing from the motions thus communicated, and the order according to which they ſucceed each other, are ſtill conformable to the laws of nature, that relate to theſe new circumſtances; however, as the volitions of men are the original *occaſions* of theſe changes, from whence the ſucceeding derive, men, or their volitions, are with ſufficient propriety conſidered as their *occaſional cauſes*.

721. *How* any being has its exiſtence, either from any other, or without receiving it from any other, is equally inexplicable, and it muſt be ſo; for *how* denotes manner, inſtrumentality,

lity, or mediation. And to explain theſe, they muſt be ſuppoſed to have exiſted; but they have not exiſted in the caſe of a being *unoriginated*, nor in creation, which can have no intelligible cauſe, but the will of the Creator.

722. *Every power is referable to ſome ſubſtance.* Thus, the power of willing exiſts in the human mind, the power of creating, in the Supreme Being; in ſhort, every power muſt be the power of ſomewhat, as every property muſt be the property of ſomewhat.

723. *We can never attribute power to any being, but by having obſerved it, or by analogy, or by its being included in the definition of ſuch being.**

724. *Neceſſity can in no caſe be conſidered as the ground or cauſe of exiſtence.*† For neceſſity is a mere abſtract term, denoting the impoſſibility of the non-exiſtence of that, whatever it be, whoſe exiſtence is aſſerted. This impoſſibility has undoubtedly its foundation in the nature of the thing, to which it is aſcribed, but this foundation is nothing diſtinct from

* Hamilton, 39. † Ibid. 82, 83.

the thing itſelf, and therefore cannot be the cauſe of it. Thus we ſay, *the three angles of every triangle are neceſſarily equal to two right ones*; or *it is neceſſary that the three angles of every right-lined angle, ſhould be equal to two right ones:* we cannot mean, that neceſſity is the cauſe of this equality, but ſimply the mode in which we conceive it to exiſt.

725. A *law*, inaſmuch as it refers to the will of a lawgiver, may well be denominated a *cauſe*; whether phyſical or moral, as the caſe may be, but without ſuch reference, it is a mere ſenſeleſs term.

726. *The adaptation of means to an end can proceed only from an intelligent cauſe.* For this adaptation preſuppoſes a diſcernment of the relation, which the means bear to the end. Now the diſcernment of relations is what conſtitutes and diſcriminates an intelligent cauſe from all other ſuppoſed cauſes. And hence, the more complicated the means, the greater muſt be the intelligence of the cauſe.

727. *An effect is not always proportioned to the power of its cauſe: nor is the power of a cauſe neceſſarily proportioned to its effect.* Thus, an artiſt, who can make the moſt complicated machine,

machine, may alſo make the ſimpleſt. But this is to be underſtood of real efficient cauſes, and not of thoſe improperly ſo called, as mechanical and inſtrumental cauſes; for the effects aſcribed to ſuch cauſes, are certainly *ſigns* of the power exerted by the real efficient cauſes.

728. *There cannot be two cauſes of exactly the ſame effect.* For, in that caſe, each would be the total cauſe of the effect, and not the total; ſince, beſides it, there would be another alſo; the effect would be entirely produced by one cauſe, and yet not entirely, ſince the whole was alſo produced by another cauſe, which is evidently contradictory. When a load is drawn by two horſes, one part of the weight is drawn by each; it would be abſurd to ſay, that the whole weight was drawn by each, as well as contradictory to common experience.

729. An *affirmative propoſition, unleſs ſelf-evident, requires to be proved*; for, an affirmative propoſition aſſerts the exiſtence of its ſubject, at ſome period of time. Now, the exiſtence of any being cannot be ſuppoſed, without being proved, unleſs we already

know that all poſſible beings exiſt, which we are certainly far from knowing.

Hence, an hypotheſis cannot be deemed true, from the mere circumſtance, that its falſehood cannot be ſhewn.

729[b]. Beings ſhould not be multiplied without neceſſity.

SECTION IV.

OF THE AGREEMENT OF FAITH AND REASON.

730. By *reaſon*, I here underſtand, firſt, intuitive, or demonſtrated truths, whether metaphyſical, mathematical, or moral.

731. Or, ſecondly, the intellectual faculty of the human mind.

732. Or, thirdly, the known laws of corporeal nature, and high probabilities.

733. Or, fourthly, expectations founded on the uſual train of moral events, or the uſual effects of human characters.

734. *Faith* denotes truſt, or confidence in, or a perſuaſion of the veracity, probity, or integrity of any perſon, and in this ſenſe, we are

are ſaid to *believe in him*; or, ſecondly, it denotes the credit given to his teſtimony, in any particular caſe. This is grounded on the firſt ſenſe.

735. Faith is either human, or divine, according as it is given to the teſtimony of men, or to that of the Supreme Being; this laſt is ſimply called *faith*.*

736. *Divine teſtimony* to any truth, is called a *revelation* of that truth.† This teſtimony is given either *immediately*, by a ſupernatural communication, or inſpiration, of which we know nothing more than that it has exiſted, as ſuch communication has commonly had no analogy to our uſual inlets of information, (though ſometimes it has been given by angels, appearing in a human form, and conſequently in a manner, ſimilar to that, by which we receive information from each other); or mediately, by the poſitive aſſertion of perſons poſſeſſed of ſupernatural powers, exerted in proof of the credit due to them, and of the truth of the facts or doctrines they announce. Or, laſtly, and more re-

* Locke, lib. iv. chap. xvi. ſec. 14.

† Ibid. chap. xviii. ſec. 2.

motely, by *tradition*, from perſons, to whom ſuch proofs have been exhibited.*

737. Thus, Chriſt received his doctrine by inſpiration;† for, he aſſerted that his doctrine was not his, but rather His that ſent him;‡ and the ancient prophets, as Jeremiah, Ezekiel, Hoſea, &c. aſſerted that the *word of God*, that is, a revelation, was made to them; the apoſtles received their doctrines from Chriſt, who, by miracles, proved his veracity, and numbers received them from the apoſtles.

738. Conſequently, Chriſt and the ancient prophets believed the facts or doctrines they announced, to be true, through the conviction that they received them from God, who can neither deceive, nor be deceived; which conviction wrought on their minds, as powerfully as the evidence of a mathematical propoſition.

739. But the apoſtles believed theſe truths to have been revealed, not through a conviction impreſſed on their minds, by imme-

* For the ſenſe of this word, as here applied, ſee Grot. in Matth. chap. xv. ſec. 2.

† Fleury, Eccleſiaſt. Hiſt. i. 249.

‡ John, vii. 16.

diate

diate inſpiration,* but by the intermediation of reaſon, for they muſt have argued thus.

740. Doctrines, which God has atteſted, muſt be true; but God has atteſted by miracles, which we ourſelves have ſeen, the truth of the doctrines which Jeſus has preached, and which we ourſelves have heard him deliver. Therefore, the doctrines preached by Jeſus, are true. Their faith, therefore, was founded on reaſons perfectly evident and concluſive, reſting, firſt, on the evidence of their ſenſes, and, laſtly, on a demonſtrative argument, that theſe doctrines proceeded from God himſelf.

741. Again, the perſons who received theſe doctrines from the apoſtles, believed them to have been revealed, that is, miraculouſly atteſted by God, becauſe they were announced to have been ſo, by perſons, who could have been impelled by no human motive, whether of ambition or pleaſure, to impoſe upon them; who aſſerted them in oppoſition to their

* Not even Peter, when he confeſſed Jeſus to be the Son of God; for, otherwiſe, it were no merit in him to to have done ſo. See Hammond's note on Matth. xvi. 16, and Wolzogen.

earlieſt

earlieſt and moſt flattering prejudices, deterred by no menaces, dangers, or ſufferings; nay, they knew that many of them had ſuffered death, in conſequence of their atteſtation, that they had ſeen the author of theſe doctrines alive, after he had been notoriouſly put to a public and ignominious death.

742. Conſequently they had a moral certainty of the veracity of the apoſtles, and conſequently, of the truth of the doctrines they announced, as originally atteſted by God himſelf.

743. Laſtly, all ſucceeding generations believed theſe doctrines to have been revealed, on the authority, that is, the atteſtation of the preceding generation; that they received thoſe doctrines, or rather the books that contained them, from the former generation, and ſo on, in a retrograde order, terminating in that which received them immediately from the evangeliſts or apoſtles themſelves.

744. The apoſtles who received theſe doctrines from Chriſt himſelf, were *certain* that they were true in *ſome* ſenſe, yet they did not underſtand them in the true ſenſe, until they had received a new illumination at, or after the

the day of Pentecoſt; thus, before, and even after the reſurrection, they expected Chriſt to eſtabliſh a temporal kingdom.

745. Hence, it is plain, that the ſenſe of doctrines taught by Chriſt himſelf, might be miſtaken by thoſe, to whom they were immediately announced, ſince it was miſunderſtood by the apoſtles; thus, when he informed them and others, that he was the Chriſt, or Meſſias, they miſtook the meaning of that word, for they imagined the Meſſias would be a temporal prince.

746. We ſee alſo, that the faith of perſons to whom revealed doctrines were *mediately* conveyed, was in every progreſſive ſtep, from the generation that received them from the apoſtles to that now exiſting, grounded on reaſons evincing their derivation from God himſelf; hence, in every caſe, faith is founded on the evidence of ſenſe, or on moral certainty, that ſuch evidence had been given, and, therefore, can in no caſe contradict either reaſons metaphyſically evident, or the evidence of ſenſe; for, if it could, it would ſubvert itſelf, being, as we have ſeen, grounded on both; and the reaſons for believing the truths

truths taught by revelation, cannot be ſtronger than thoſe we have for believing any other evident truth.

747. In examining, therefore, whether any doctrine has been revealed, we are to obſerve, whether ſuch doctrine be conceived in *intelligible* terms; and if ſo, whether it contradicts any intuitive or demonſtrable truth, whether metaphyſical, mathematical, or moral; or facts whereof we have a moral certainty; for, if it does, it cannot be ſuppoſed to have been revealed.* And, if found not to contradict any ſuch truth, whether there be a moral certainty of its having been revealed, that is, whether it be certain that the texts ſaid to imply it are genuine, and irrefragable, and undoubtedly contained in the books either of the old or of the new Teſtament, which all Chriſtians allow to contain revealed truths. And, if ſo, whether the paſſages ſaid to contain it, are to be underſtood in the literal, or in a

* So Moſes commanded a prophet tempting the Jews to worſhip falſe Gods, not to be believed, but, on the contrary, to be put to death, though what he tells ſhould come to paſs. Deuteronomy, chap. xiii. v. 1—5.

figurative

figurative ſenſe; and whether it be morally certain that they are to be taken in that particular ſenſe, or whether they are ſuſceptible of a double ſenſe.

748. If any fact or doctrine, contrary to an evident or demonſtrable truth, has the *appearance* of having been revealed, it muſt, notwithſtanding ſuch appearance, be rejected; for, the certainty that we rightly underſtand texts, preſenting a ſenſe incompatible with evident or demonſtrated truths, can never be ſo great as the certainty of thoſe truths, which that ſenſe oppoſes.

749. Thus, though it is expreſſly ſaid in the writings of the old Teſtament, that God made man after his own *image*, that he *repented* having made man, that he remembered, &c.; and, conſequently, that God had a body, which that of a man reſembles; that he is ſubject to human infirmities and paſſions; yet, as the plain literal ſenſe of theſe texts, in which this doctrine is apparently revealed, is evidently contradictory to thoſe perfections, which are demonſtrably attributed to the Supreme Being, this ſenſe (which anciently

impoſed

impoſed upon many,*) is now rejected by all Chriſtians.

750. Here I cannot omit ſtating, a celebrated diſtinction taken between things, ſaid to be *conſonant to*, or *according to reaſon*, and thoſe ſaid to be *contrary to reaſon*, and thoſe ſaid to be *above reaſon*.

751. *Reaſon*, in theſe caſes, is taken in two different ſenſes; for it either denotes the general and well-known maxims of that ſcience, to which the matter alleged is ſuppoſed to relate, or, it denotes the actual or poſſible extent of the faculty of reaſoning. Thus, in natural ſcience, a phænomenon is ſaid to be *according to reaſon*, when it is conformable to phyſical laws and general experience, ſuch as the laws of gravity, elaſticity, chymical affinities, &c. or even to the uſual effects of the powers of magnetiſm, or electricity, which

* The Antropomorphites, ſee their arguments in Burnet's Archæologia, p. 518. So alſo St. Auſtin, ſee Fleury, Eccleſiaſt. hiſt. vol. v. p. 195; and 2 Jerom. fol. 161, and 163; and Hooker's Life, p. 12; and the Abp. of Paris, Paſtoral Letter in Rouſſeau, vol. ix. p. 32.

have

have not been, as yet, ſatisfactorily deduced from general principles. So in metaphyſics and morals, thoſe propoſitions are ſaid to be conſonant to reaſon, whoſe truth is either evident or deducible from the evident principles of thoſe ſciences.

752. Again, thoſe facts or propoſitions are juſtly ſaid to be *contrary* to reaſon, which contradict the laws or maxims of any particular ſcience, ſuch as that a man really dead, ſhould be reſtored to life *by any human means*; that lead ſhould float on water;* that a man ſhould ſee by his ears, or hear by his eyes, &c.; that the univerſe ſhould exiſt without a cauſe or reſult, from the operations of an unintelligent cauſe; that the diſtinction between virtue and vice is merely arbitrary, &c.

753. Laſtly, thoſe things are ſaid to be merely *above* our reaſon, which concern facts *undiſcoverable* by our natural faculties, or imperfectly intelligible, ſuch as the future reſurrection of the dead, the exiſtence of angels. Secondly, facts as yet undiſcovered, as the

* Yet gold may, when ſufficiently expanded, as gold leaf: lead is as yet, at leaſt incapable of ſuch expanſion; its condenſed ſtate is here underſtood.

cauſe

cauſe of earthquakes, that of magnetiſm, electricity, the laws and minute circumſtances attending the proceſs of vegetation, or of the nutrition of animals, &c.; though theſe cannot juſtly be ſaid to be beyond the reach of our faculties, but rather above or beyond the actual ſtate of our knowledge; otherwiſe many diſcoveries in the laſt century, ſuch as thoſe of Franklin, Black, Prieſtley, Cavendiſh, Lavoiſier, Montgolfier, &c. might in the preceding century, be ſaid to be above reaſon, and thoſe of Newton, in the 17th century, &c. But the moſt important points ſaid to be above our reaſon, are thoſe of whoſe truth we cannot doubt, though it ſeems irreconcilable with other evident truths, or imperfectly intelligible, as unorigination of any being. Of theſe I ſhall ſtate a few, and briefly ſhew that ſome of them are miſunderſtood, and others indeed incommenſurable with human reaſon; that is, imperfectly intelligible, but none of them inconſiſtent or contrary to evident truths: the principle points of this kind are, firſt, the union of the ſoul and body. Secondly, the agreement of Divine preſcience and human liberty. Thirdly,

creation.

creation. Fourthly, eternity. Fifthly, the Divine immenſity. Sixthly, the admiſſion of evil. Seventhly, the nature of the percipient principle in brute animals.

754. And firſt, *as to the union of the ſoul and body*, the difficulties ſo clearly and ably ſtated by Dr. Prieſtley,* are indeed unanſwerable in the commonly-received opinion, that bodies are external ſubſtances, diſtinct from the mind; but are deſtitute of foundation when bodies are conſidered as mere ſenſations; a truth, which our immortal Berkeley has long ago demonſtrated.

755. Secondly, the certainty of Divine preſcience is eaſily ſeen to be conſiſtent with the free agency of the human will, when it is conſidered, that this freedom requires no more than an uncontrolled choice among motives to action, whoſe influence, when viewed in different lights, may, in ſome caſes appear equally, and in others unequally advantageous. If the apparent inequality be infinite, there is, I grant, no freedom of choice, but in proportion to the diminution of their different appe-

* Diſquiſitions on the Nature of Matter, p. 56, &c.

tibility, liberty may exiſt. It is only, then, where the motives or inducements may be made to appear equal, or approach to an equality, that ſome uncertainty can prevail; but, in the Divine mind, ſuch uncertainty cannot be found; for, as God's knowledge extends to all poſſible truths, that of a choice betwixt either of the oppoſite motives muſt be known to him, at leaſt as poſſible, and then that order of things, or ſeries of events, in which a correſpondence of one of theſe motives with volition is foreſeen as future, becauſe it will in reality happen, is choſen and decreed.

756. Thirdly, *creation*, being evidently the reſult of Divine will and power, is perfectly intelligible, when it is conſidered that this power is infinite. The axiom, that *of nothing, nothing can be made*, relates only to finite, not to infinite power, which requires no ſubject to work upon, and by which, all things poſſible may be effected. Of the fact we have a clear notion, and that is all the word denotes; it is only the mode or manner which we cannot comprehend; for this very valid reaſon, that ſuch mode is merely fictitious, and never exiſted.

757. Fourthly,

757. Fourthly, *eternity*; the notions commonly entertained of it, undoubtedly involve abſurdities. It is held by ſome, to be a ſpecies of duration, implying infinite ſucceſſion, yet to this ſucceſſion, an increaſe is daily made, which is contradictory to the notion of infinity. Beſides, what could be the ſucceſſion when no creatures exiſted. Others defined it to be a duration that exiſts altogether, a *punctum ſtans*, than which notion, as Mr. Locke obſerves,* nothing can be more inconceivable. For, if this were true, nothing in reality could be ſaid to be paſt or future, and the creation of Adam and his yet unborn progeny would co-exiſt, &c. &c.

758. The true notion then of eternity, is that of *exiſtence without a beginning and without an end.* The excluſion of limits in this caſe, is as intelligible as in any other.

759. Fifthly, *the Divine immenſity*: this again includes an evident contradiction; for it is ſuppoſed to fill all ſpace, and yet not to be extended. But this is one of the many abſurdities ſwept away along with material ſubſtance.

* Book II. chap. 17. ſec. 16.

 760. Sixthly,

760. Sixthly, *the exiſtence of evil*, which ſeems contradictory to the notion of the infinite goodneſs of the Supreme Being. We muſt however, conſider, firſt, that *natural evils*, ſuch as *pain* and *death*, are the neceſſary conſequences of general laws, whoſe eſtabliſhment is equally neceſſary to the greateſt general good of the whole. Secondly, that human life is a ſtate of probation, to which liberty of action is eſſentially requiſite; and, that it is from the abuſe of this liberty that moral evil originates.

761. Seventhly, with reſpect to *brute animals*, we are by far too ignorant, both of their preſent and future ſtate, to form any decided opinion concerning them; it is only from analogy that we are inclined to allow them to have any percipient principle; but, is not this analogy far too weak to entitle us to decide? are not their actions, in many caſes, merely automatic? if weak analogies be ſufficient to induce us to ſuppoſe a percipient principle, we muſt allow it, not only to vermin, but alſo to microſcopic animalculæ, and even to vegetables, which ſome philoſophers have lately endeavoured to eſtabliſh. As to their

their future ſtate, if in this life they have any perception of the evils they ſeem to ſuffer, we may be aſſured *a priori*, they will in a future ſtate receive ample retribution for their ſufferings in the preſent.

762. Hence, it muſt be allowed, firſt, that many facts or doctrines *contradictory* to the laws of corporeal nature, as far as known to us as miracles, or *unattainable*, as well as inexplicable by any exerciſe of human reaſon, as the reſurrection of Chriſt, and the future reſurrection of the dead; or *inconceivable*, as the creation of the univerſe, or of any thing, (No. 685); or even *imperfectly intelligible*, as the unorigination of the Supreme Being; may nevertheleſs be true, as ſhewn No. 687.

763. According to Mr. Williams, we can no more *believe* what is above our reaſon, than we can *ſee* what is beyond our ſight. But the compariſon is not appoſite; for as what we cannot ſee, becauſe above ſight, may, nevertheleſs, abſtracting from its awkward poſition, be perfectly viſible, ſo what is *above*, that is, undiſcoverable by our reaſon, may, abſtracting from our ignorance, be in itſelf perfectly intelligible. And as we may believe

in the exiſtence of things, relatively to us inviſible, on the teſtimony of thoſe, to whoſe eyes they are more advantageouſly preſented, ſo we may believe what is above our reaſon, if not in itſelf repugnant or ſenſeleſs, on the teſtimony of a being, whoſe intelligence infinitely ſurpaſſes our own.

764. Bayle,* about the beginning of the laſt century, denied the diſtinction betwixt things *above* reaſon, and *contrary* to reaſon. Upon this principle, that what *is not conformable to reaſon*, muſt be contrary to reaſon; juſt as what is not conformable to truth is contrary to truth. By want of conformity with reaſon, he muſt mean what is inconſiſtent with other truths, and if ſo, he ſays what is perfectly juſt; for, what is not conſiſtent with other evident or demonſtrated truths, muſt be not only *above*, but alſo *contrary* to reaſon. His compariſon is then defective, ſince reaſon here ſignifies truths, as far as truths are known to us. But if by conformity with reaſon, he means explicable by human reaſon; and by what is not conformable to reaſon, he means not *expli-*

* See 3 Bayle, Poſthumous Works, p. 833.

cable

cable by reaſon, his aſſertion that ſuch doctrine is *contrary to reaſon* is falſe; for he himſelf will allow, that the unorigination of any being is *inexplicable*, though far from being inconſiſtent with any truth; its *inexplicability* ariſing from its want of analogy with other truths, and ſo are many natural phænomena. So alſo, when he ſays that many revealed truths are *irreconcileable* with human reaſon, if he means that they are *adverſe* to it, he is miſtaken; but if he means that their direct connexion with other truths, cannot be ſhewn, or, in other words, that they are inexplicable, he ſays what muſt be allowed.

CHAPTER IX.

OF FALSE PRINCIPLES.

SECTION I.

UNAUTHORISED SUPPOSITIONS OF PARTICULAR INTERPOSITIONS OF DIVINE PROVIDENCE.

765. It is, I believe, at preſent, an acknowledged truth; that corporeal nature is governed by general laws; by which I underſtand the

regular agency of the Divine Being, modified and diverſified in various predetermined circumſtances, commonly called the *courſe of nature*, diſcovered by experience, and according to which men regulate their moſt important actions. Yet ſome think, that this regularity is occaſionally interrupted, either for the protection of the virtuous, or the puniſhment of the vicious, or at leaſt of thoſe they deem ſuch. Thus the earthquake which overturned Liſbon, on the 1ſt of November 1755, was interpreted by many to have been a puniſhment of their idolatry on that day; if ſo, Rome, Paris, Madrid, and Vienna, ſhould alſo have been deſtroyed; yet, as Voltaire juſtly remarks, Liſbonne eſt abimée, et l'on danſe *a Paris*.

766. This ſuppoſition, when unwarantably extended, is nothing leſs than an audacious attempt to ſcrutinize the impenetrable deſigns of Divine wiſdom, is fraught with the moſt pernicious conſequences, and is condemned by our Lord himſelf, Luke 13. It tends to ſubvert the moſt eſſential tenet of Chriſtianity, namely, that this life is a ſtate of diſcipline and probation, and that on this principle, misfortunes

misfortunes are equally incident to the pious, and impious. Upon the abſurd ſuppoſition of ſuch providential interference, though contradicted by general experience, it was inferred, that in all conteſts, God would render the juſter party victorious; hence originated the barbarous trials by ordeal, thence called *judicium Dei*, and the equally deteſtable practice of duelling. Both Mahomet and Cromwell attributed their ſucceſſes to the particular interference of Providence in their favour, and thence inferred the juſtice of their reſpective pretenſions. In Spain, both the Bible and the Alcoran were committed to the flames, it being imagined, that whichever of them contained the true doctrine, would remain unhurt; but, to the aſtoniſhment of the bigots, both were conſumed. Many other inſtances of this preſumptuous credulity, may be ſeen in Lord Kaimes's Sketches of the Hiſtory of Man, vol. ii, p. 412, 413.

767. The bigots of the age of Theodoſius, perſuaded his ſons, that the good fortune of his father, was owing to his perſecution of Pagans and Heretics. Hence his ſon Honorius perſecuted both, with the moſt outrageous violence; yet, in his time, Rome was taken, and

and the empire diſmembered and ruined. Libanius the ſophiſt, attributed the family misfortunes of Conſtantine, and the ſpeedy extinction of his poſterity, to his having eſtabliſhed the Chriſtian religion. Si c'eſt pieté et religion, que d'attribuer à la providence, la diſpoſition de tous les évenements, c'eſt preſomption de vouloir determiner, la fin que Dieu ſe propoſe en les permettans. Fra. Paolo, Hiſt. du Con. trente, p. 112.

768. It is plain, an univerſal denial of ſuch occaſional interpoſitions of Divine Providence, is not here intended; it is evident, that many may be met with in the hiſtory of the Old Teſtament, many in the new, and in the apoſtolic age, but ſcarcely any, ſufficiently authenticated in later ages.

769. We may alſo ſafely affirm, that the ſucceſſion of events has been ſettled from the beginning, with infinite wiſdom; that all are either cauſed, or permitted, for purpoſes, on the whole, moſt beneficial, and, that wicked men may often be more fortunate, but are always more unhappy than the virtuous, being either tormented by remorſe, or haunted by ſuſpicions, of the moſt afflicting kind. Of this direful ſituation, hiſtory affords many proofs.

SECTION

SECTION II.

THAT CRIMES MAY BE EXCUSED OR EXTENUATED BY A SUPPOSED IGNORANCE OF THE FIRST PRINCIPLES OF THE MORAL LAW, OR THE GENERAL PREVALENCE OF FALSE PRINCIPLES, OPPOSITE THERETO IN ANY AGE OR COUNTRY.

770. Few principles have of late been more ſtrenuouſly ſupported, and yet more deſerving of general rejection, than that the primary dictates of the moral law, may to any portion of mankind, be utterly unknown, or if known, that practices, plainly inconſiſtent with them, are in any degree excuſable, from their long continuance, and general prevalence in any age or country. By the primary dictates of the moral law, I mean, the ſix laſt commandments of the Decalogue, the performance of equitable promiſes and treaties, the general obligation of not doing to innocent perſons, what we could not reaſonably wiſh they ſhould do to us, and a few more. I do not pretend that ſuch abſtract principles are innate, but merely, that in every particular circumſtance to which they are applicable, a ſentiment of approbation or diſapprobation, conformable to them, ſponta-

neouſly,

neouſly, that is, inſtinctively, ariſes in the mind acquainted with that circumſtance; the neceſſity of food for the prolongation of animal exiſtence, is certainly not known as an innate principle, but hunger, at certain intervals, renders us ſufficiently aware of it.

771. The exiſtence of ſuch feelings, or internal inſtinctive judgment, even in heathen nations is acknowledged not only by Chriſtians,* but by heathens themſelves.†

772. That

* Epiſt. ad Roman. cap. ii. 14, *for when the Gentiles which have not the Law, do by nature, the things contained in the law, they are a law unto themſelves*; and v. 15, *who ſhew the work of the law written on their hearts*, their conſcience alſo bearing witneſs, and their thoughts, accuſing or *excuſing one another*. It is remarkable, that Mr. Locke makes no mention of this text, when treating of moral principles, lib. i. cap. iii.; nor, does he take notice of it in his Comments on the Epiſtle to the Romans, though in fact, it does not contradict his aſſertion; for, he only denies, that abſtract moral principles are innate. The moral ſenſe he was unacquainted with, as Stewart juſtly remarks, *Outlines*, p. 24, &c. Le Clerc ſtrongly endeavours to evade the force of this text, interpreting, *written* on their hearts, to mean *diſcoverable by reaſon*; ſee his notes. But what ſhould tempt them to reaſon at all, if there were no inſtinct warning them to do ſo? In reality, reaſon in ſimple caſes is totally needleſs, the ſentiment precludes it.

† See Cicero de Legibus, lib. i. cap. 11, and the fragment

772. That the ſentiments which regulate the intercourſe of the ſexes, and which, in civilized countries, are commonly deemed natural, (though in ſome inſtances, evidently factitious, for they could not originally have taken place) differed in different countries, may be granted, as they ſeem only the ſecondary dictates of the natural law, when reaſon had in ſome degree been cultivated; but the more outrageous violations of that law, in this reſpect (as that which is ſaid to take place among the Guebres or ancient Perſians), evidently proceeded from ſuperſtition; for it is ſaid to have been practiſed for the purpoſe of mortification.* And to this principle we may alſo refer the Babylonian law, commanding indiſcriminate proſtitution if it ever exiſted,† which,

ment de Republica, and the numerous quotations of Grotius, in his notes on this text, and on Luke xii. 47; alſo Home's Sketches of the Hiſtory of Man, vol. ii. p. 342. Dub. edit.

* Picart Cerem. Relig. however, I much queſtion its exiſtence, as Herodotus does not mention it, nor does Tavernier.

† The ſuperſtitious principle which might have given riſe to it, is explained by Goguet, *Origin of Laws*, &c.

Book

which, I think, highly improbable.* Now, ſuperſtition, it is well known, is able to controul or overrule, the moſt powerful inſtincts of the human mind; and, to this dire enemy of all reaſon, human ſacrifices are alſo to be attributed; but, unleſs enemies were the victims, they could not be offered, without oppoſing the natural ſentiments of humanity, and conſequently without remorſe, this being the never-failing avenger of the violation of theſe ſentiments, unleſs oppoſed by other ſentiments equally forcible, as hatred to their enemies, or other reaſons equally ſatisfactory, and ſuch ſuperſtition could never allege, reſting merely on the vague and groundleſs imagination, that victims of the worthieſt ſpecies, and conſequently of the human, were moſt acceptable to the Gods. Therefore,

Book vi. p. 194, Ed. edition. It is related by Herodotus, lib. i. cap. 199, and its credibility ſupported by l'Archer, in his note p. 522, chiefly on the concurrent teſtimony of the prophet Baruch. But this book is proved to be Apocryphal by Grotius, in his notes p. 713, and particularly the ſixth chapter, in which this cuſtom is thought to be alluded to.

* It is well refuted by Voltaire, Dict. Philoſoph. *Babel.*

obedience

obedience to the dictates of an erroneous conſcience, is no alleviation of this horrible crime, for, this excuſes only, when it is attended with invincible ignorance, which cannot be ſuppoſed in this caſe, as appears by the teſtimonies already alleged, and thoſe which will preſently be ſeen.*

773. The cuſtom of putting ſtrangers to death, when found in their territories, originated in the well-grounded ſuſpicion of their being ſpies, and therefore in ſome meaſure excuſable. As ſuch, ſtrangers not being ignorant of that law, and yet clandeſtinely tranſgreſſing it, evidently deſerved ſome puniſhment. The Arabs to this day, rob ſtrangers traverſing the deſerts, without their permiſſion, as they conſider theſe deſerts as their property, in which food and water are very ſcanty, and ſhould not therefore, be taken without their leave.†

774. Other cruel cuſtoms, aſcribed to ſome Scythian tribes, as the *Androphagi*, &c. by Herodotus,‡ and other Greek writers, are not

* See Puffendorf, lib. i. cap. iii. ſec. 10. No. 6, in note.

† Ibid. lib. iii. cap. iii. ſec. 5.

‡ Lib. iv. cap. 103, &c.

to

to be lightly credited, as the authors of the univerſal hiſtory well remark * On the contrary, their character is highly extolled by Juſtin,† and other authors quoted by Bochart in his *Phaleg.* The ſaying of the Satiriſt is well known, *quantum Grecia mendax, audet in hiſtoria*; Quintilian Inſt. Orat. ii. 4, *Græcis hiſtoriis plerumque poeticæ ſimilis eſt licentia*; and Cicero de Legib. lib. i. cap. 1. *apud Herodotum patrem hiſtoriæ, et apud Theopompum, ſunt innumerabiles fabulæ.*

775. That ſome African hordes devour their own children, and the ſtill more abſurd tale, of mothers alternately feaſting on each others children, ſtand ſelf refuted, ſince thoſe hordes did not ceaſe to exiſt.

The Spartan law, for deſtroying deformed and ſickly infants, may well be preſumed to have taken place, only with reſpect to monſters, ſince Ageſilaus, though born lame, and ſo feeble and delicate in appearance, that his parents had no hopes of being able to rear him, was not only preſerved, but lived 84 years.‡

* Vol. ii. p. 273, folio ed. † Lib. ii. cap. 1.

‡ Goguet, lib. vi. cap. iii. p. 219.

776. Theſts

776. Thefts could not be criminal in Sparta, where they were allowed by a law aſſented to by the people themſelves.

777. The deſtruction of aged parents, by ſome American ſavages, was not the reſult of want of natural affection, but of abſolute neceſſity, as during the abſence of the younger part of their families in providing food, without which all muſt periſh, the aged and infirm could not defend themſelves againſt wild beaſts, and therefore demanded a ſudden death, as a leſs cruel termination of their miſery. Even among ourſelves I have known perſons ſeized with a hydrophobia ſtifled between two feather beds, to terminate their ſufferings.

778. Various other enormities, enumerated by Sextus Empyricus,* evidently without any attention to modifying circumſtances, and with the ſyſtematic view of rendering all principles, whether of reaſoning or morality, problematical, and alſo by Puffendorf,† are unſupported by any proper teſtimony, and therefore wholly improbable. That thoſe col-

* Lib. iii. chap. xxiii. † Lib. ii. chap. iii. ſec. 8.

lected by a late eminent writer on the law of nations* from lying or ill-informed modern travellers, were ever habitually and coolly practiſed by any ſavage tribes without remorſe, is much leſs credible, than that Europeans, ignorant of their languages and of their motives, ſhould have miſrepreſented them. Would not a ſavage, or even a Chineſe imperfectly acquainted with the Portugueſe language, naturally ſuppoſe that burning a Jew or an heretick at an *auto da fe*, was an human ſacrifice offered by Chriſtians to their God? The ancient heathen nations were much better acquainted with the Jews who lived among them, and ſpoke their languages, than any of our travellers, ſo much relied on, could be with the ſavage tribes, whom they curſorily viſited; and yet they did not underſtand why the Jews abſtained from the fleſh of ſwine. Tacitus, ſays, *ſue abſtinent, memoriâ*

* Ward's Enquiry, vol. i. p. 73 & 82. He collected chiefly from Hackluit, who was himſelf no traveller, but, as Locke ſays—"Stuffed his accounts with ſtories taken on truſt, and from Tavernier, whoſe travels are full of miſtakes, as Baron, a native of Tonquin, remarks; and from Picart, whoſe work is filled with traſh."

cladis quod ipſos ſcabies quondam turpaverit, cui id animal obnoxium. And others thought this cuſtom proceeded from their reverence for hogs, *et vetus indulget ſenibus clementia porcis.* Perſius. Many cuſtoms prevail in different nations,° which, though founded on ſufficient reaſons, appear abſurd to thoſe who who are unacquainted with thoſe reaſons. Thus by the Egyptian laws daughters were obliged to maintain their indigent parents, but ſons were not;* becauſe, as L'Archer well obſerves, males were often neceſſarily abſent from their families, either on military ſervice, or as judges, or as prieſts of diſtant temples; whereas, females had no occupation that neceſſitated their abſence.

779. Neither can any concluſion adverſe to the principles here ſtated, be juſtly inferred from the cruelty of American ſavages to their priſoners; for the conduct even of civilized nations, in a ſtate of hoſtility, is not accurately and immediately pointed out by the moral faculty; and hence even in modern times an eminent juriſt has allowed the uſe

* Herod. Lib. ii. chap. xxxvi.

of poiſoned arms,* &c.; and others, as Vattel, &c. have very properly condemned it. It is to be obſerved alſo, that American ſavages could ſcarcely avoid putting their priſoners to death, as they had no priſons to detain them; nor could they ſell them as ſlaves, as European ſavages did; nor could they maintain them when they themſelves were often diſtreſſed for food; yet they often incorporated them in their own ſociety, when any family conſented to ſuch adoption. To inſpire terror is the policy of ſavages, and this object is ſo fully attained by theſe cruelties, that wars have of late been very unfrequent among them. The humane uſages that at preſent prevail in civilized nations, are chiefly derived from tacit conſent, and the mild influence of Chriſtianity, as Grotius has ſhewn. That the accounts tranſmitted to us, from the firſt viſitors of America, of the manners of its ſavage inhabitants, are, for the moſt part, groſs falſehoods, may well be inferred from their miſrepreſentations, even of the external form of theſe ſavages, of which they could have the

* Wolf, ſee Vattel, *Droit des gens*, preface, p. 16.

teſtimony

teſtimony of their ſenſes. Yet Doctor Robinſon informs us,* " that the ſame fables that " were current in the ancient continent, have " been revived with reſpect to the new " world, and America has been peopled with " human beings of monſtrous and fantaſtic " appearance. The inhabitants of certain " provinces have been deſcribed to be pigmies, " of three feet high; thoſe of others to be " giants of an enormous ſize. Some travel- " lers publiſhed accounts of people with only " one eye; others pretended to have diſco- " vered men without heads, whoſe eyes and " mouths were planted in their breaſts. The " variety of nature is indeed ſo great, that it is " preſumptuous to ſet bounds to her fertility, " and reject indiſcriminately every relation " that is not perfectly conſonant to our li- " mited obſervation and experience; but the " other extreme of yielding an haſty aſſent on " the ſlighteſt evidence to whatever has the " appearance of being ſtrange and marvellous, " is no leſs unbecoming a philoſopher; as in " every period men are more apt to be be-

* Hiſtory of America, vol. ii. p. 54. Dub. ed.

" trayed into errors by their weakneſs in " believing too much, than by their arrogance " in believing too little. In proportion as " ſcience extends, the wonders that amuſed " ages of ignorance diſappear; the tales of " credulous travellers are forgotten; and the " monſters they deſcribe have been ſearched " for in vain."

Hence it is matter of no ſmall ſurpriſe, that the ſage Locke ſhould credit tales juſt as abſurd, and on their authority aſcribe moral ſentiments merely to education and cuſtom. It is true, his aſſertion relates only to the *innateneſs* of moral *principles*; and if principles be taken for abſtract propoſitions, his aſſertion is certainly true; for the abſtract propoſition cannot precede the ſentiments which give birth to it. But theſe ſentiments are felt at the very idea of injuſtice in ſimple caſes. Savage tribes were aſſuredly better known to Ariſtotle, who lived at a period when the greater part of Europe was inhabited by ſavages, than they can poſſibly be to us; and yet he acknowledges, *that by a kind of natural divination*, as he called it, *all mankind diſtinguiſh, generally, what is juſt from what is unjuſt, independently*

dependently of all ſocial conventions. By *natural divination* he plainly means the dictates of the moral ſenſe.*

780. Nor does the variation of the dictates of the moral ſenſe in varying circumſtances any more oppoſe the belief of the exiſtence of that ſenſe, than the hitherto unexplained variations of the atmoſphere deſtroy the certainty, that it is governed by fixed laws; or the variations of the laws of motion, or of chymical affinities, in certain caſes and occurrences. Thus, though unprovoked and vengeful homicide is juſtly condemned by all men, yet, if committed in one's own defence, it is with equal juſtice excuſed.

781. If, from the abſurd opinions of ſome philoſophers on moral ſubjects (of which many are enumerated by Barbeyrac, in his preface to Puffendorf,) we may infer, that uniform notions of morality have no exiſtence; we may with equal propriety conclude, that neither reaſon nor truth have any real exiſtence; for theſe alſo have been denied by ancient and modern ſceptics—men of the

* Rhetoric, lib. i. chap. xiii.

greateſt abilities. In fact, moſt of theſe ancient opinions were built on mere abſtract political reaſoning, and not on the ſuppoſed abſence of moral ſentiments.

782. The general concluſion from theſe conſiderations is, that compliance with the ſimple and primary dictates of the moral law, has ever been approved by all tribes and aſſociations of mankind, while in a ſtate of peace; and their violation condemned and attended with remorſe, unleſs overruled by ſuperſtition; which originating in the deluſive phantoms of imagination, can afford no excuſe to its abject and no leſs criminal votaries.

783. As the enormities of ſavage tribes have been aſcribed to their ſuppoſed ignorance of the moral law, ſo the criminalty of many laws, cuſtoms, and practices, of civilized nations, has, in a ſubſequent and more improved period of human reaſon, met with advocates, who, from party attachment, have endeavoured, if not to juſtify, at leaſt to palliate and excuſe theſe exceſſes, by reaſon of their extenſive prevalence in the ages which they diſgraced.

784. Thus

784. Thus Chauffepied, in his dictionary, article *Servet*, p. 244, after cenſuring intolerance in the fulleſt and moſt decided manner, and conſequently diſapproving the execution of Servet, yet adds, *mais qu'on ne faſſe pas un crime a Calvin d'avoir été dans les memes prejugés que tout ſon ſiecle*, as if received opinions, which in other much leſs plain caſes Calvin utterly diſregarded, ſhould, in this caſe, ſcreen him from blame. How much more juſt and liberal the ſentiments of the late excellent George Lord Lyttelton, who after reciting the deteſtable cuſtom that prevailed in the twelfth century, of puniſhing the innocent kindred and dependants of a criminal,* adds—"Nothing can juſtify this proceeding; for that which is contrary to humanity and natural juſtice cannot be warranted by any authority of *law* or cuſtom." Doctor Robertſon, in his Hiſtory of Charles the Fifth, expreſſes himſelf rather incorrectly† on this

* Life of Henry the Second, vol. i. p. 435 & 573. Dub. ed. See alſo Home's Sketches, &c., vol. ii. p. 347.

† I have ſaid incorrectly, becauſe I am perſuaded that he meant only to excuſe the ferocious language and manners

this ſubject; for he aſſerts, that—" in paſſing " judgment on the character of men, we " ought to try them by the *principles and* " *maxims* of their own age, and not by thoſe " of another; for, though virtue and vice are " always the ſame, manners and cuſtoms " vary continually." The *names* indeed of virtue and vice remain unaltered; but if what is virtuous in one age, may by a change of principles and manners become vicious in another, or *vice verſa*, I do not ſee how the *realities* denoted by thoſe names can be called the ſame. Dr. Robertſon would ſurely be unwilling to apologize for the conduct of Thomas à Becket in the twelfth century, which yet may be ſheltered by this maxim. Accordingly catholic writers have not failed to apply it. The learned Mr. Milner, ſtating the exemption which the clergy then claimed from the juriſdiction of the ſtate, to have been admitted and ſworn to by the ſovereigns of moſt Chriſtian countries, aſſerts, that the primate would have been inexcuſable if he had

ners of Luther; for it is on that occaſion he lays down that obſervation: but, as the words extend further, I think the obſervation inaccurately expreſſed. See vol. iii. 8vo. book viii. p. 338. Dub. ed.

not

not defended it in a lawful manner;* and the learned, candid, and impartial writer of the life of Henry the Second, Mr. Berrington, thinks that theſe maxims, which he allows to be wild, being thoſe of that age, a man of unaffected probity might then maintain them.† And afterwards, after cenſuring the intemperate conduct of Innocent the Third, he adds, "the maxims of the age however muſt not be forgotten; they will "throw ſome veil over the failings of Innocent; will extenuate the intemperance of his "meaſures, and blunt the edge of cenſure."‡ It is however very evident, and might even then with very little attention be diſcovered, that the rights, and immunities, and ſuperiority over temporal powers, claimed by the clergy in that age, were pregnant with miſchief; and accordingly, both before and after Becket's time, produced infinite confuſion and bloodſhed.

785. In the ſame manner, the right of affording an aſylum to the moſt atrocious

* Milner, letter ii. p. 44. Cork ed. † 1 Berrington, life of Henry the Second, p. 204. ‡ Vol. ii. p. 309.

criminals,

criminals, claimed by Chriſtian princes for the dwellings of their ambaſſadors at Rome, was ſuch a groſs violation of true religion, and of the tranquillity and good order of ſociety; of regular juriſdiction; and of the independence of a ſovereign ſtate, as might inſtantly be perceived, and therefore incapable of extenuation from the habits of the age; yet Lewis the Fourteenth claimed and enforced this right, even in the ſeventeenth century; to ſay nothing of a ſtill more outrageous and unpardonable exertion and vindication of it in our days.

786. Can any one attempt to palliate the criminality of gladiatorial ſhews, ſo long exhibited both in pagan and Chriſtian Rome (proſcribed indeed by Honorius, but finally aboliſhed only by the Arian Theodoric,) by reaſon of their having been practiſed for upwards of 500 years? In vain would the rights of an erroneous conſcience be alleged in extenuation of ſuch enormities; for this excuſes only when founded in invincible ignorance, as already ſaid, which cannot be alleged in caſes ſo plainly repugnant to reaſon and humanity.

787. I omit many other ſavage practices that obtained in the comparatively dark ages, amply enumerated in the learned and curious treatiſe of Mr. Ward on the law of nations; which evidently can neither be ſanctioned or excuſed by their univerſal ſpread, or the lamentable length of time they have prevailed. One only I cannot omit, as ſome laws favourable to it ſtill remain in an highly enlightened nation: namely, the practice, or at leaſt the aſſumed right, of perſecution for holding ſpeculative religious opinions, different from, and therefore deemed erroneous, by thoſe in whoſe hands the ſovereignty of the ſtate is lodged. This claim is evidently unjuſt; for if a *perſecutor* thinks himſelf obliged by the dictates of his conſcience to perſecute thoſe who avow opinions which to him ſeem falſe, and thinks it unlawful to diſobey what his conſcience thus dictates to him, he ſhould reflect, that the *perſecuted* think themſelves no leſs obliged to profeſs opinions which they judge true and pious—a plea which muſt be admitted when thoſe opinions are not evidently derogatory of all religion, nor injurious to ſociety; therefore, if the perſecutor judges the rights of conſcience

ſcience generally obligatory, he muſt allow, that thoſe of the conſciences of the *perſecuted* are equally ſo, and conſequently he cannot violate them without falling into a manifeſt inconſiſtency and injuſtice; he muſt therefore perceive, that the impulſe to perſecution cannot proceed from an enlightened conſcience, and conſequently is not obligatory. Now perſecution in ſuch caſes being eſſentially unjuſt, no oaths can bind potentates to exerciſe it, nor can judges be excuſed for enforcing the ordinances (for laws they cannot be called) that command it. Vainly would the pretext of enſuring the ſalvation of ſouls be alleged; moſt Chriſtian ſects believe that infants dying after baptiſm are received into eternal bliſs; would it therefore be lawful for any one to put them to death, to procure them this ineſtimable advantage?

SECTION

SECTION III.

THAT A VARIETY OF OPINIONS ON ANY SUBJECT IS A SUFFICIENT PROOF OF THE UNCERTAINTY OR FALSEHOOD OF ALL OF THEM.

788. This principle is frequently urged by perſons, who, either through indifference or indolence, and perhaps often on finding the true opinion inimical to their paſſions, prejudices, or intereſts, wiſh to avoid an accurate examination of any of them.

789. They tell us then, that on mathematical ſubjects no difference of opinion exiſts, becauſe they alone, ſay they, are capable of certainty; whence they conclude, that the reaſon why diſputes occur in other ſciences is, that ſuch diſputes are not capable of receiving a ſatisfactory deciſion.

790. Upon conſideration, however, it will be found, that the uniform agreement of mathematicians on *pure* mathematical ſubjects is not cauſed by the greater certainty to be found in that ſcience, for we are equally certain

tain of many phyſical and hiſtorical truths as we can be of any propoſition in Euclid, but merely from its being a ſcience merely intellectual, founded on the relation of identity of a propoſition with ſome preceding propoſitions, and theſe on the ſame relation with others, until we arrive at the primary definitions and axioms; and from the clear unambiguous ſignification of the terms it employs, fixed by ſenſible ſigns, as figures or diagrams: where theſe advantages cannot be found, as in ſome ſubjects of mixed mathematics, in explaining the grounds of the fluxionary or differential calculus, or the negative ſign in algebra, or the logarithms of negative quantities, &c. mathematicians have entertained various opinions.

791. Many of the numerous controverſies that ſtill ſubſiſt in other ſciences, may, with much greater propriety, be aſcribed rather to various extrinſic cauſes, than to any intrinſic impediment to arrive at certainty.

792. Thus, in *politics*, it has long been queſtioned, and warmly diſputed, whether ſimple monarchy, ariſtocracy, democracy, or ſome mixed forms, were moſt conducive to the

the happineſs of a nation; at laſt it was perceived, that the anſwer depended on various circumſtances, which muſt, in every inſtance, modify, limit, and reſtrain, the application of general principles, and conſequently the queſtion (not from the uncertainty of thoſe principles, but from their neceſſarily diverſified application,) was incapable of a general ſolution; inattention to the modifying circumſtances had alone occaſioned a difference of opinion. Are we therefore to conclude, that in particular caſes, no ſatisfactory deciſion can be had? Experience has long ſince proved the contrary.

793. In *theology*, antecedently to the birth of Chriſt, various ſuperſtitions have indeed prevailed, but as few of them (namely thoſe of the Perſians and Egyptians) have been intolerant, it does not appear, that theſe religioniſts entered into any controverſy with thoſe who held oppoſite tenets, or ſubmitted their opinions to the teſt of reaſon, but rather blindly aſſumed them from education, and adhered to them merely through veneration for their anceſtors, from whom they received

them.* Yet, though all theſe opinions were certainly falſe, it does not follow, that theſe being ſet aſide, no truth was attainable on this ſubject; for, many of the moſt important truths of natural religion, might, with cool and unprejudiced attention, be diſcovered; but in fact few took the pains, or purſued the right method of arriving at their knowledge.

794. Since the birth of Chriſt, Jews, Chriſtians, and Mahometans, have maintained very different opinions; but the Mahometans maintained theirs, rather by the ſword, than by peaceful argument. The controverſy we have with the Jews, might be brought to a ſpeedy deciſion, could they be induced, as many of their anceſtors have been, to pay more attention to the proofs derived from miracles, and to the high degree of moral certainty of the reality of thoſe miracles; but ſtrong and early prejudices, perhaps, alſo, ſome intereſted motives, ſeem to have hitherto rendered them adverſe to all examination and diſcuſſion.

795. With reſpect to the diſputes of the

* See No. 387.

various

various Chriſtian ſects with each other, the caſe is not very different. Some of them originated in that religious inſanity, called *fanaticiſm*, and ſoon died away. Others of them, owe their continuance, at leaſt, to eſtabliſhments, and the impolitic interference and ſupport of civil powers. If mere ſimple Chriſtianity, ſuch as all Chriſtian ſects contend for, in their diſputes with deiſts, were alone eſtabliſhed, the whole of the goſpel morality, and its ſanctions, would be preſerved; which is all that any government can be intereſted in, and conſequently require.* Such of the preſent controverſies as are capable of a ſatisfactory deciſion, would in that caſe ſoon ceaſe.

796. In *natural philoſophy*, ſince mere theoretic ſyſtems have been abandoned, the want of ſufficient data, and of proper inſtruments, have been the chief obſtacles to unconteſted concluſions; in proportion as theſe have been acquired by men of ſuperior talents, as Newton, Boyle, Halley, Hales, Boerhaave, Stahl,

* See Locke's Treatiſe on the reaſonableneſs of Chriſtianity.

Margraf, Black, Prieſtley, Cavendiſh, Bergman, Scheele, Franklin, Lavoiſier, Klaproth, Werner, Guyton, Berthollet, Vauquelin, De Luc, Sauſſure, &c. a perfect uniformity in numberleſs inſtances has taken place.

797. Though of all ſciences, metaphyſics has been the moſt contentious, yet there is none which has diſcloſed more important truths, none whoſe controverſies, when at laſt brought to a proper iſſue, have contributed ſo much to the cultivation of the human underſtanding, or freed mankind from more abſurd or atrocious errors, whoſe inanity or turpitude it has developed and demonſtrated. It has irrefragably evinced the exiſtence, unity, and attributes of the Supreme Being; rendered the immortality of the human ſoul, at leaſt highly probable; and has annihilated, at leaſt in the minds of the unprejudiced, the fatal doctrine of materialiſm, that fruitful parent of numberleſs errors, inconſiſtencies, and contradictions; and extricating human reaſon from the mazes and ſubtleties of ſcepticiſm, as well as from the idle dreams and terrors of ſuperſtition, has at laſt eſtabliſhed its independence, and the

ſupremacy

ſupremacy of its juriſdiction in all caſes whatſoever, intelligible by man.

798. To effect theſe important purpoſes, the futility of our earlieſt and moſt inveterate prejudices muſt have been made evident. The inaccuracy of judgments deduced from ſenſible appearances, inſufficiently examined, muſt have been demonſtrated; the ambiguity of terms long abuſively, or improperly applied, muſt have been detected, their ſignification ſtrictly diſcriminated, aſcertained, and inviolably fixed. The difficulty of ſuch a taſk, where nothing could be rendered apparent to the ſenſes, but mere unembodied intelligibilities alone preſented, is ſufficiently evident. Yet it has been happily accompliſhed by the ſucceſſive efforts of Locke, Berkeley, Merian, and Condillac; inſomuch, that few of the idols of the *tribe*, the *den*, of the *market*, or of the *theatre*, as Bacon quaintly calls them,* ſtill remain undemoliſhed.

799. Hence,

* Idols of the *tribe*, are falſe notions founded in human nature; idols of the *den*, are thoſe peculiar to certain individuals or claſſes; idols of the *market*, are words in their uſual, but falſe ſignification; and idols of the *theatre*, are

799. Hence we ſee, that, from a variety of opinions on any ſubject, we ſhould not immediately conclude, that none of them is true, or, that truth is unattainable on ſuch ſubjects; but merely that its diſcovery demands examination and diſcuſſion, or perhaps more numerous *data*, which time and experiments may furniſh, though at preſent unknown.

SECTION IV.

THAT SOVEREIGNS ARE OBLIGED TO MAINTAIN BY FORCE THE RELIGIOUS OPINIONS ESTABLISHED IN THEIR DOMINIONS.

799[b]. For, firſt, ſpeculative opinions ſhould be maintained by arguments and not by force, which can produce no other effect but irritation, or a ſuſpicion that opinions which are ſo ſupported, are falſe; or entire indifference and neglect of examination; and thus, in effect, no conviction of their truth being had, they are the opinions of the nation only in appearance.

falſe philoſophic theories. 1 Shaw's Abr. of Bacon, p. 132, and 2 ditto, 351.

Secondly,

Secondly, this maxim would prevent the introduction of Chriſtianity into any country.

Thirdly, this maxim is equally applicable to falſe and to true religious opinions; for no ſovereign thinks his opinions falſe; and if ſo applied, truth can never find admiſſion into countries profeſſing the moſt abſurd opinions, whether Pagan or Mahometan; and in effect converſion cannot be effected in Japan, or Mahometan countries.

CHAPTER X.

OF SOPHISMS.

800. A ſophiſm is an erroneous argument, proceeding either from miſapplication, or miſconception, or a miſtake of the general principles of reaſoning.

1. *From Miſapplication.*

801. As where an argument is applied againſt a point, which is not the ſubject

of the debate; this logicians call, *ignoratio elenchi.*

802. Thus, the point in diſpute between the primitive Chriſtians and the polytheiſts was, whether there was one God only, or many Gods. Symachus argues, that their anceſtors adored a plurality of Gods, and were always victorious; which was foreign to the ſubject debated. Beſides, the nations they conquered, were alſo polytheiſts, and the Greeks in particular worſhipped the ſame Gods.

803. So Paſchal, arguing againſt atheiſts, inſiſts, that atheiſm is more dangerous than theiſm. Whereas, the point in debate is the *truth*, and not the prudence of either ſyſtem. Some Chriſtian ſects uſe the ſame argument againſt each other.

2. *Miſconception.*

804. As when an argument is employed, which preſuppoſes the truth of the point in debate to be on one ſide, without proving it. This ſophiſm, logicians call, *petitio principii.*

805. Thus,

805. Thus, the Jews argue, that Jeſus could not be the Meſſias, becauſe he did not appear as a victorious prince, as the prophecies announced he ſhould, taking for granted, that the prophecies ſhould be underſtood in the literal ſenſe, which is the point denied by Chriſtians; not only becauſe of the miracles of Chriſt, which proved him plainly to be the Meſſias, but becauſe the literal accompliſhment of the prophecies, could occaſion no change of the depraved moral ſtate of the world, and therefore could not be the true ſenſe of thoſe prophecies.

Thus, when neceſſarians ſay, that the mind is always influenced by the preponderant motive, if any motive appeared to be ſo before, as well as after election, their poſition would be juſt. But they infer the preponderance of the motive before election, from its appearance after the election, to have been that with which the will complied. An inference which is a mere *petitio principii*, aſſuming that for true, which their opponents deny.

806. Nearly allied to this undue aſſumption of the principle in debate, is that mode of

of argumentation called a *vitious circle*, in which one point is proved by another, and this other is proved *ſolely* by the firſt; ſo that the proofs are mutual, and under the ſame point of view.

807. Thus the ſceptics argue, that we ought to doubt of every thing, becauſe human reaſon is fallible, and may deceive us. And ſince reaſon may deceive us, we ſhould doubt of the validity of the reaſons that induce us to doubt.

808. Thus Ariſtotle aſſerted, that the ſtars ſeem to twinkle, on account of their immenſe diſtance, and aſſerted, they were immenſely diſtant, becauſe they are ſeen to twinkle.

809. Thus Deſcartes formed a vitious circle, when having proved that God exiſts, becauſe exiſtence is contained in the clear and diſtinct idea which we have of the Supreme Being, he afterwards derived the certainty we have, that ſuch ideas cannot deceive us, from the incompatibility of ſuch deception with the goodneſs of the Divine Being.

810. It is alſo commonly ſaid, that Catholics form a vitious circle, when they prove the authority of their church, by the authority of the

the Scriptures, and the authority of the Scriptures by that of their church. But, in fact, the authenticity, and conſequently the authority of the Scriptures is proved by the teſtimony of Chriſtians of all ſects, that is, of all thoſe who profeſſed Chriſtianity ſince the apoſtolic age, unto the preſent day; and undoubtedly, the Roman and Greek Catholics have their ſhare in this *teſtimonial* authority, which ſhould be carefully diſtinguiſhed from *doctrinal* authority. And as the *doctrinal* is not proved by the *teſtimonial* authority, nor the teſtimonial by the doctrinal, there is no circle or reciprocation of proofs. But, if the doctrinal authority of the Scriptures were attempted to be proved by the doctrinal authority of the church, and the doctrinal authority of the church by that of the Scriptures, then there would be a circle.

Aſk the aſtronomer, how he judges motion at any time, to be uniform? he will ſay, by its paſſing over equal ſpaces in equal times, as pointed out by the clock. And, if again you ſhould inquire, how he knew his clock kept equal time? he would anſwer, by being adjuſted to the motions or periodical appearances

ances of the heavenly bodies. But, if he is further preſſed for an abſolute proof of the equability of their motions, he would confeſs, that no ſuch proof exiſted. It may appear prepoſterous, that the equability of motion in the heavenly bodies ſhould be judged of by clocks, and that theſe, in their turn, ſhould be adjuſted to the motions of the ſame heavenly bodies. The method is, however, founded in reaſon. For the uniformity, or deviation from uniformity, of motion in the heavenly bodies, may be aſcertained to a certain degree, by a competent number of obſervations made with clocks; becauſe ſuch obſervations may be made mutually to correct each other; and thereby, not only to point out the regularity, or otherwiſe, of the motions in queſtion; but further, may ſhew them to be more ſo, than any one of the time-keepers themſelves; and, conſequently, fit to adjuſt even theſe, in their turn. Watſon on time, p. 103.

3. *A defective Enumeration, and an erroneous Generalization.*

811. Of all errors, this is perhaps the moſt common. Thus, if a perſon is found guilty by a jury, it is inferred by ſome, that he really was guilty, or by others, that the jury was culpable which found him ſo; whereas, it ſometimes happens, that the culprit is innocent, and yet the jury not culpable, being deceived by falſe witneſſes. The real cauſes of many important events are frequently unknown, as may be proved in numerous inſtances; thoſe, therefore, to which alone they are attributed, or deemed to be attributable, are imperfectly enumerated; our deciſion can reach at moſt to a probability, and not to a certainty.

812. There are few properties invariably, that is conſtantly, found in all bodies, namely, gravity, mobility, and the vis inertiæ. The ſuppoſition, therefore, that the general characters or properties, whether of mankind, or of animals, vegetables, or minerals, or, univerſally ſpeaking, of any contingent beings, comprehended

prehended under the ſame general denomination, admit of no exception, is erroneous.

813. And firſt, with regard to men, though rationality be their ſpecific character, yet a few are ideots from their nativity. Decrepitude, and the marks of old age, ſeldom appear before the age of fifty, unleſs haſtened by hardſhips or intemperance; yet there is a well-atteſted account of the general ſtages of juvenility, maturity of mental powers, grey hairs, and decrepitude, having been attained before the age of eight years. The antediluvians, we are authoriſed to ſay, lived many hundred years; and, even in latter ages, ſome attained the age of 160 years. How much different individuals vary from each other, both in diſpoſition, mental abilities, and bodily conſtitution, need not be mentioned; but, that any of theſe properties are excluſively confined within certain geographical limits, were a prepoſterous aſſertion, though often arrogantly aſſumed. Unequal degrees of cultivation, and other moral cauſes, occaſion that inequality obſervable in different nations; yet, a diſtinguiſhed critic, about the beginning of the laſt century, made it a queſtion, whether

whether a German could have wit? There is ſcarce any general property of animals, whether internal ſtructure, nouriſhment, mode of production, &c. to which many exceptions are not found, in the vermicular and inſect tribes. I need mention only the polypi, and ſea anemonies.

So in the mineral claſs, how many, even of the ſame ſpecies, differ from each other in their external appearance and phyſical properties, as ſhape, colour, tranſparency, hardneſs, weight, electrical and magnetical properties? Who would have believed, that diamonds were not ſtones, but a ſpecies of coal?

814. As thoſe general concluſions are moſt frequently erroneous, which exclude all exceptions, others are ſtill more egregiouſly defective, being deduced not from extenſive and general obſervation, but from a few particular inſtances, frequently accidental. This erroneous mode of reaſoning, logicians call *fallacia accidentis*. Thus, ſome antimonial remedies, having been in a few caſes unſkilfully prepared, or injudiciouſly adminiſtered, the parliament of Paris iſſued a decree,

decree, abſolutely forbidding all antimonial remedies in any caſe, or however prepared. Yet it is now known, that moſt preparations of that mineral, are of all others the moſt efficacious and beneficial. So the vices or crimes of a few individuals of ſome particular nation, ſect, or profeſſion, have frequently been imputed to all thoſe of the ſame nation, ſect, or profeſſion. What has been uſeful or hurtful in ſome inſtances, has been judged to be ſo in all caſes, without adverting to peculiar circumſtances. This ſophiſm, logicians call, *a dicto ſecundum quid, ad dictum ſimpliciter.*

4. *Tranſition from one Order of things to another.*

815. Thus, when mathematicians argue againſt indiviſible phyſical points, and inſiſt, that if any ſuch exiſted, they would be the common meaſure of all lines; and yet it is demonſtrable, that certain lines, as the ſides and the diagonal of a ſquare, are incommenſurable; they argue from the ideal to the phyſical order of things, which admit of no ſtrict compariſon. So many ſpeculative notions

tions which may be true, when abſtractedly conſidered, are found to be falſe and ill grounded when attempted to be reduced to practice, of which we have ſome recent remarkable inſtances. So princes, judging uniformity of opinions in religious matters poſſible, and highly deſirable, by attempting to enforce it by coercion, have produced infinite evils; forgetting that their power, as well as their duty, extends only to the promotion of the temporal concerns of the ſociety over which they preſide, and not to the ſpiritual, which, reſiding in and proceeding from the diſpoſitions of the mind, are placed beyond their reach. Accordingly they have hitherto ſucceeded only in forming hypocrites, infidels, rebels, martyrs, or both.

816. In the ſame manner, conſequences dangerous to ſociety have been deduced from certain religious tenets, which regarded only the world to come; though ſolemnly denied by thoſe that held theſe tenets, and contradicted by the experience of ages. Thus the primitive Chriſtians denied ſalvation to Pagan idolaters,* yet this tenet did not prevent

* Minuitius Felix, p. 21. Engl. Edit.

their cordial regard to their idolatrous neighbours, nor weaken their allegiance to their heathen ſovereigns; for whoſe proſperity, on the contrary, they conſtantly prayed * and often fought.

Thus alſo ſeveral have endeavoured to rank under this ſpecies of ſophiſm, the attempt to apply ſome evident philoſophical truths to certain myſterious theological doctrines, as if, though true in philoſophy, they could be falſe when applied to certain myſteries. See Leibn. 77.

5. *Miſtakes of the Collective Senſe for the Diſtributive, or the Diſtributive for the Collective.*

817. The univerſal term *all*, is applicable either to the parts, of whatever it denotes, *aſſembled* together, or to each of thoſe parts ſingly conſidered; the former is called the *collective*, the latter the *diſtributive* ſenſe of that term and of other equivalent terms.

Thus when it is ſaid, that *all the members formed a committee*, or that *all the ſoldiers*

* Tertullian Apolog. p. 194, 197. Eng. Edit.

formed

formed a ſquare, who could think that each member was a committee, or each ſoldier a ſquare? yet as abſurd miſtakes have been committed. So when it is ſaid that *the Britiſh fleet is invincible when not conſiderably outnumbered*, it is not meant that *each* ſhip in the fleet is invincible, but only the whole *collectively*; and on the other hand, it does not follow, that becauſe each ſhip may be ſunk in a naval engagement, that the whole fleet may be ſunk or conquered; nor becauſe every fibre compoſing a cord or cable may eaſily be broken, that all of them collectively may be eaſily broken.

So when Dido, in the 4th Æneid, tells Æneas, *omnibus umbra locis adero, all* here does not ſignify in all places collectively, but diſtributively.

§18. Sometimes an univerſal propoſition is true, both in the collective and diſtributive ſenſe; thus the propoſition *all men are mortal* is equally true in both ſenſes; and this always happens when any property of the diſtributive ſtate receives no alteration in the collective ſtate; thus 1000 men aſſembled together, cannot perceive a diſtant object

more diſtinctly than one man; but it is otherwiſe where the powers of individuals are increaſed by their union; thus, 20 men will draw a load which one man cannot move; ſo, the opinion of three or more ſkilful and impartial perſons, is commonly preferable to that of one only, as in the diſcuſſion they enlighten each other; hence conſultations of phyſicians, counſellors of law, &c.

819. In general, the *relative* properties of the parts, taken diſtributively, ſhould not be attributed to the whole which they compoſe, nor thoſe of the *whole* to each part; hence the fallacy of the ancient ſophiſm, *three and two are odd and even numbers; now three and two are five, therefore five is a number, both odd and even*; for five is a name that expreſſes the collective only; ſo, though the parts that compoſe the whole are *inviſible*, it does not follow that the *whole* is inviſible, &c.

820. Some propoſitions are *metaphyſically* univerſal, denoting ſome eſſential property, as that *all circles are round*; theſe admit of no exception: ſome are *phyſically* univerſal, that is, in the uſual courſe of nature, as that *all*

men

men are rational, or *have two hands*; theſe admit of ſome exceptions; for ſome are ideots from their nativity, and ſome are born without hands: ſome are only *morally* univerſal, as that *all women are talkative*; theſe admit of numerous exceptions.

821. Sometimes univerſal propoſitions are to be underſtood with a tacit reſtriction; thus, when Chriſt is called the *Saviour of the world,* it is not to be underſtood, that all mankind will be ſaved, but only, that all that are ſaved, are ſaved only through his merits. So, when it is ſaid, Gen. chap. 1, that God gave Adam for food, *all* herbs bearing ſeed, it is to be underſtood only of ſuch as were eatable, which an angel probably taught him to diſtinguiſh; ſo, when it is ſaid, Mark v. 20, *all men did marvel,* the meaning is, all who heard of the miracles of Chriſt.

6. *Falſe Inferences from Contrary or Contradictory Propoſitions.*

822. An argument deducing contradictory conſequences from contrary cauſes, or from

contradictory propoſitions, is fallacious and ſophiſtical.

823. Thus, when it is ſaid, *a white colour is viſible, therefore a black colour is inviſible*, the conſequence is falſe; for though white and black are contrary to each other, yet they agree in viſibility; ſo, though avarice and prodigality are oppoſite, yet both are odious; ſo it does not follow that as virtuous princes are reſpectable, that vitious princes ſhould not alſo be reſpected, &c.

824. So, if we *do not believe* that Nero ſet fire to Rome, though Tacitus affirms it, ſurely it does not follow that we *ſhould believe it* if Tacitus *denied it*. Here, and in the ſubſequent examples, affirmation and denial are contradictory, yet contradictory conſequences do not follow from them.

825. So we *do not believe* that Attius Navius the augur cut a flint (or rather a hone) with a razor, though all the Roman hiſtorians *affirm it*, * much leſs ſhould we be tempted to believe it, if all the Roman hiſtorians *denied it*.

* See Hook's Roman Hiſtory, vol. i. book i. chap. vi. ſect. 5.

826. So,

826. So, few interpreters, whether Catholic or Proteſtant, believe the Jewiſh law to be ſtill obligatory, though Chriſt expreſsly affirmed, that he came not to repeal it, but to fulfil it; and that every tittle of it ſhould remain as long as the world laſts;* yet it does not follow that we ſhould affirm it to remain, if Chriſt had *denied* that it ſhould remain.

827. Again, *Trajan was a good prince, Trajan was not a good prince,* are contradictory propoſitions; yet to infer from the firſt, that *only ſome* of his actions were juſt; and from the ſecond, that *all* his actions were unjuſt, were falſe inferences, though contradictory to each other.

828. I do not mean that two contradictory propoſitions can be falſe; for, in reality, that *all* his actions were juſt, is *falſe*; witneſs his perſecution of Chriſtians; and that *ſome* of his actions were unjuſt is *true*. I only mean, that the inferences are not properly drawn; for inſtance, the firſt: the proper inferences ſhould be from the firſt propoſition, that *all* or *moſt* of his actions were juſt; and

* Matth. v. 17, 18.

from the ſecond, that *none* of his actions were juſt; or at leaſt that *moſt* of them were unjuſt: theſe are *contrary* propoſitions, if we uſe the words *all*, *none*, and both are falſe; but if we uſe the word *moſt*, they are only ſub-contrary, and one is true, and the other falſe.

829. Thus we ſee, that a falſe conſequence may be improperly deduced from a true propoſition, unleſs it be ſyllogiſtically deduced; for a conſequence is not contained in a ſingle propoſition, except by converſion, but in two premiſes either expreſſed or underſtood. Thus, if it be ſaid, *the apoſtle Peter was a ſaint, therefore he never ſinned or erred*, the conſequence is falſe, for he both ſinned in denying Chriſt, and erred after the promiſe made to him, *that on this rock I will build my church* (if it ſhould be ſo interpreted,) and after receiving the Holy Ghoſt, &c. It muſt here alſo be remarked, that the epithet *good* is beſtowed on perſons whoſe conduct and views are generally good, though liable to ſome errors, as in the caſe of David, &c.

830. *Note*, alſo, that inferences that expreſs no more than a bare and *preciſe denial* of

of the contrary of what is affirmed in the propoſition from whence they are inferred, are juſt; becauſe a thing cannot be, and not be, at the ſame time; thus, when it is ſaid, *it is day, therefore it is not night,* or *ſugar is ſweet, therefore it is not bitter.*

831. So alſo an *affirmative* inference is juſt, if it expreſſes no more than is implied in the negative propoſition from which it is deduced, otherwiſe it is erroneous.

Thus, if it is ſaid, *Peter is not dead, therefore he is living*; *the ſun is not ſet, therefore it is day*; all theſe are juſt inferences.

But if it be ſaid, *Peter is not a prodigal, therefore he is a miſer*; or *vinegar is not ſweet, therefore it is bitter*; theſe are falſe inferences, becauſe they not only expreſs the denial but add to it.

7. *Paſſing from the Conjoint to the Disjoined Senſe, or Reciprocally.*

832. This happens when, from the impoſſibility of a change taking place at the ſame inſtant of time, it is inferred, that it cannot take place at different periods of time; this

the

the ſchoolmen call *fallacia compoſitionis*; or when a change that muſt take place at different periods of time are falſely underſtood or attributed to the ſame period of time.

833. Thus, when Zeno inferred, that a body at reſt cannot move, this is true, *while* it is at reſt, or at the ſame inſtant in which it is at reſt; but falſe, if underſtood of ſeparate inſtants. In theſe caſes three inſtants ſhould be diſtinguiſhed; the firſt in which the body is at reſt; the ſecond in which the cauſe of change is introduced; and the third in which the change takes place. The cauſe of change cannot be introduced in the firſt inſtant, for the introduction of ſuch a cauſe, is itſelf an inceptive change, and this cauſe muſt precede the complete change.

834. So when it is ſaid, *that ſlanderers, &c. cannot enter into the kingdom of heaven*, it is to be underſtood, while they continue in that guilt, and do not wipe it off by repentance.

835. So, when it is ſaid, that the *predeſtined cannot be condemned*, the meaning is, that you cannot ſuppoſe them both predeſtined and condemed at the ſame time; that is, both ſuppoſitions cannot ſtand together,

no

no more than that of reſt or motion, but both may ſtand ſeparately; for, abſtracting from the certainty of their ſalvation, it is equally certain, that they retain the power of incurring condemnation as long as they live; thus, though it is certain that the ſun roſe yeſterday, yet it is equally certain that God had the power of preventing it to riſe yeſterday.

836. The other branch of this ſophiſm is called *fallacia diviſionis*: it conſiſts in attributing to all the parts taken collectively, that which is truly attributed only to all the parts taken *diſtributively*; thus, though each man in London may die this week, yet it would be abſurd to ſuppoſe, that all the men in London ſhould die this week; for though it be phyſically poſſible, yet it is morally impoſſible. So, though it is phyſically poſſible that each copyiſt of the holy Scriptures ſhould err or miſtake ſome material paſſage, yet it is morally impoſſible that all the copyiſts ſhould ſo err or miſtake, as there are many thouſands of them.

837. Or in denying *that* to a *collection* of all the parts, which yet may well be denied of

of all the parts taken *diſtributively*, or even of ſmaller collections; thus, becauſe one glaſs of wine, or even ten glaſſes of wine, may not make a man drunk, it would be abſurd to ſuppoſe that 100 would not.

838. Or, affirming *that* of an *indeterminate* part, which is truly affirmed of any *determinate part*; thus, though we may allow that a man is not neceſſitated to ſtand in any *determinate place*, yet we muſt deny that he can ſtand in no *indeterminate* place.

839. Or, attributing to both parts of a compound, that which is truly attributable only to one part of the compound; as in the following ſophiſm: *man thinks:* now man is a compound of ſoul and body, therefore, both ſoul and body think; beſides, it errs againſt the ſecond ſyllogiſtic rule, for *ſoul and body*, as forming a *compound*, is the attribute of the ſecond propoſition; whereas, in the concluſion, they are taken diſtributively, and conſequently not in the ſame ſenſe.

8. *Miſtakes in the Aſſignment of Cauſes.*

840. Theſe miſtakes are called *a non cauſa pro cauſa*, and *poſt hoc ergo propter hoc.*

Sometimes

Sometimes theſe miſtakes are merely unſatisfactory, the error conſiſting not in the aſſignment of a *falſe* cauſe, but of one *too general* to convey any inſtruction, and thus deceiving the inquirer. For inſtance, aſſigning the *will or permiſſion of God*, as the cauſe of any event; this every one already knows; but as God always acts by the intermediation of ſecondary cauſes, it is the immediate, and not the remote cauſe that is ſought, as this alone conveys any new knowledge; this miſtake is generally made by ignorant, or obtruded by artful people, to evade the diſcovery of the true cauſe.

841. But the moſt uſual miſtake in philoſophic diſcuſſions, conſiſts in attributing indiſcriminately to preceding circumſtances the efficacy of real cauſes; whereas, they are often in truth only *ſigns* of the action of ſome really efficient cauſes; or in miſtaking final cauſes for efficient cauſes.

842. To explain this matter clearly, it is neceſſary to ſtate the preciſe notion of a *cauſe:* whatever contributes to the exiſtence of a thing (or, more rigorouſly ſpeaking, to the exiſtence or deſtruction of any thing) is called the

the cauſe of its exiſtence or deſtruction. And as many things tend in different ways to produce the effect, cauſes are variouſly diſtinguiſhed from each other; only ſix of theſe diſtinctions need here be mentioned, namely the *efficient*, the *occaſional*, the *conditional*, the *final*, the *phyſical*, and the *moral*.

843. An *efficient* cauſe is that whoſe action is alone ſufficient to produce the effect; this ſufficiency is made known to us, either by the definition of the being that poſſeſſes it, or by conſciouſneſs; it is called *power*.

844. Hence there are but two efficient cauſes naturally known to us, namely, *God*, in whoſe definition omnipotence is included, and the *human ſoul*, of whoſe power to produce its own volitions we are conſcious. All other *phyſical* or corporeal cauſes, as they are called, are nothing elſe but applications of the Divine will to the production of an effect on certain occurrences, conſtantly, univerſally, and uniformly, in the ſame circumſtances: theſe applications, when traced in different ſubjects, each to one general connecting principle, are called the *laws of nature*; and the bodies through whoſe intervention, in conformity

formity to theſe laws, the effect is produced, are called *occaſional or ſecondary cauſes*, and the conditions on whoſe preſence or abſence the production of the effect depends, are called *conditional cauſes*, or neceſſary conditions; *conditio ſine qua non*.

845. *Occaſional* cauſes, though in reality, inactive, yet being the only that are perceptible, either by the ſenſes or the imagination, are ſimply called *cauſes*, by moſt philoſophers, and ſo I ſhall continue to call them, in conformity to the received language, but ſtill retaining the true meaning, as we do in ſpeaking of the riſing, ſetting, and motion of the ſun.

846. As every newly-exiſting object is preceded by objects or circumſtances which we deem its cauſes, moſt modern philoſophers define *cauſes* (meaning efficient cauſes) to be nothing more than ſuch previous circumſtances as conſtantly and invariably are followed by an effect;* yet many circumſtances conſtantly, uniformly, and univerſally precede effects, of which they cannot be deemed the cauſes. Thus, night precedes day, ſmoke

* Prieſtley, Philoſ. Neceſſity, p. 11, 18.

precedes

precedes the combuſtion of vegetables, effervescence precedes the ſolution of limeſtones; for the carbonic acid muſt be expelled before other ſtronger acids can unite to them; efferveſcence is not the cauſe, but the condition on which the ſolution depends, and a *ſign* thereof. Surely *privations* cannot be the efficient cauſes of any thing, yet the privation of food or of air will occaſion the death of animals; the privation of *light* will be followed by the blanchiſſment of ſundry plants, &c.; they are only the conditions on which other appearances depend, or on which other cauſes act. All the powers of inanimate nature may, in their laſt reſult, be reſolved into attraction, repulſion, and impulſe, variouſly modified; all act at given diſtances; thus light is reflected at a certain minute diſtance from the reflecting body; large maſſes of matter, ſuch as the planets, act at the greateſt diſtances; magnetic and electrified bodies at very perceptible diſtances; and chymical affinities at the leaſt.

847. But though the mere priority of an object, and the ſubſequent exiſtence of an effect, even when conſtant and uniform, be not ſufficient

ſufficient to induce us to deem that object the cauſe of that effect, and that, therefore, *poſt hoc ergo propter hoc*, is a ſophiſm, or falſe reaſoning; yet, it is alſo certain, that where, in the greater number of caſes, this ſucceſſion has not been obſerved to take place, there is not a ſhadow of reaſon to ſuppoſe any preceding object to be either a cauſe, or a ſign, of any future event. Hence the abſurdity of ſuppoſing comets or eclipſes to be either cauſes or ſigns of ſubſequent diſaſters. The celebrated Bayle, in his *Penſées ſur les Cometes*, has enumerated the misfortunes that have happened the years in which comets have been ſeen, and compared them with the events of many ſubſequent years, to deſtroy this illuſion at the time in which it univerſally reigned; but, as it has long ſince vaniſhed, it is unneceſſary to dwell upon it. It originated, not in rational obſervation, but in that fear which all grand and new appearances naturally inſpire into beings ſo weak and impotent as man. Even inferior animals are not ſtrangers to it.

848. Another branch of this ſophiſm con-

ſiſts in aſſigning as cauſes, ſome phraſes or words, void of any intelligible meaning. Thus, atheiſts aſcribed the admirable ſtructure of the planetary ſyſtem, and of animals and vegetables, to *blind chance*; the peripatetics aſſerted, the *horror of a vacuum* cauſed the aſcent of water in pumps, and many other particular occult cauſes.

Neceſſarians alſo conſtantly miſtake final and conditional cauſes for efficient cauſes, and *moral* cauſes for phyſical. Final cauſes, are the particular ends which the will purſues; the conditional, are the reaſons on the view of which the mind acts, that is, forms its volitions, but which have no more a phyſical activity, than the view of a rough and ſmooth road, in determining which to follow.

CHAPTER

CHAPTER XI.

OF TECHNICAL MODES OF REASONING.

849. Theſe are ſyllogiſms, enthymems, epicheremas, ſorites, dilemma, and induction. But, the principal of theſe is the ſyllogiſm.

SECTION I.

OF SYLLOGISMS.

850. A ſyllogiſm is an argument, conſiſting of three propoſitions, the laſt of which is deduced from the two former, and if it be regular, is in fact contained in them. This is the great advantage of the ſyllogiſtic mode of reaſoning. For, by it, the framer himſelf diſcerns the concluſion, and the opponent, if he grants or denies the two firſt propoſitions, muſt grant or deny the concluſion, or ſhew that the ſyllogiſm is not in form, that is,

irregularly conſtructed. The whole force of an argument is ſtated with preciſion, and the attention is not diſſipated by prolix, involved, and vague declamation. Hence, our ableſt reaſoners have always ſought to preſent the final reſult of a long chain of reaſoning in the ſyllogiſtic form.

851. Syllogiſms are of three ſorts, ſimple, complex, and compoſite; the following rules, which I abridge as much as poſſible, are applicable to all of them; but, before I ſtate them, it will be proper to remind the reader of ſome obſervations already made in the firſt part of this work.

Preliminary Obſervations.

852. Firſt, an *affirmative* propoſition is that of whoſe ſubject ſomething is affirmed, and a *negative* propoſition is that of whoſe ſubject ſomething is denied.

853. Secondly, a *ſingular* propoſition is, in ſyllogiſtic reaſoning, conſidered as an univerſal one, becauſe the ſubject is taken in its whole extent.

854. Thirdly, an *indefinite* propoſition, is that in which the extent of the ſubject is not defined

defined by the ſigns of univerſality or particularity, but by the nature of the connexion betwixt the ſubject and the predicate, ſee N° 109. It is to be taken as univerſal, when the connexion is eſſential, and the word *all*, *every*, or *none*, may be added to the ſubject; it is taken *particularly*, when the connexion is contingent or denied, the words *ſome*, or *few*, or *many*, or *moſt*, or *ſeveral*.

855. Fourthly, the *predicate of an affirmative* propoſition, is always taken *particularly*; even though the propoſition itſelf ſhould be univerſal. N° 103.

But the predicate of a *negative* propoſition is always to be taken *univerſally*.

Note alſo, that an *affirmative ſyllogiſm*, is that, whoſe concluſion is affirmative; and a *negative ſyllogiſm* concludes negatively.

This being premiſed, we may lay down the following principles.

1. *Principle.*

856. In *affirmative* ſyllogiſms, the applicability of two expreſſions* to a third expreſſion,

* I have ſubſtituted *expreſſions* for what others called notions or ideas, and *applicability* for what others call agreement or coincidence.

called the middle term, either univerſally or particularly, is affirmed in the two firſt propoſitions; namely, the applicability of one of the expreſſions to the middle term, in one of the two firſt propoſitions, and of the other expreſſion to the middle term, in the other propoſition; and thence the applicability of the two expreſſions to each other, either univerſally or particularly, as the caſe may be, is inferred in the third propoſition. According to the axiom *que ſunt eadem unitertio ſunt eadem inter ſe.*

2. Principle.

857. If the *ſyllogiſm be negative,* then the applicability of one of the expreſſions to the middle term, either univerſally or particularly, is affirmed in one of the premiſes, and the applicability of the other expreſſion to the middle term, either univerſally or particularly, is denied in the other propoſition. And hence the applicability of the two expreſſions to each other, whether univerſally or particularly, as the caſe may be, is denied in the third propoſition; that is, the concluſion, according to the maxim, *duo non conveniunt inter*

inter ſe nec ſunt quid idem, cum uni aliquid convenit, quod repugnat alteri.

3. *Principle.*

858. Hence it is plain, that the middle term ſhould be found in both the premiſes, but never in the concluſion, where it would be ſuperfluous, and by this mark we may always diſtinguiſh it. Yet, it may be introduced incidentally and obliquely, as in No. 882, poſt.

4. *Principle.*

859. Secondly, that it ſhould have the ſame ſenſe or ſignification in each of the premiſes; for, if it had one meaning in one of the premiſes, and another meaning in the other, then the *agreement* of the two expreſſions compared with it could not be inferred, as one of them might agree with one of its meanings only, not with the other meaning, with which the other expreſſion might agree, and thus in fact there would be two middle terms inſtead of one.

5. *Principle.*

860. Thirdly, that it ſhould be taken univerſally, in at leaſt one of the premiſes; for, if it were taken particularly in both, it might agree with one of the expreſſions, with reſpect to ſome particulars, and agree with the other in other particulars, and thus there would in fact be two middle terms, as in the former caſe.

861. But, it muſt be remembered, that this danger does not occur, when a *ſingular* propoſition is employed, this being conſidered as univerſal.

862. Nor even when *definite* propoſitions are employed, becauſe the identity of the particulars referred to, is determined, and not merely vague and undetermined.

6. *Principle.*

863. That neither of the two expreſſions, whoſe applicability to each other is inferred or denied in the concluſion, can be taken more extenſively, nor differently in the concluſion than they were in the premiſes; ſo, that

that if either of them was taken particularly in either of the premiſes, the concluding propoſition muſt alſo be particular.

7. *Principle.*

864. That from two negative propoſitions nothing can be inferred; for, from this, that one of the expreſſions is inapplicable to the middle term, and the other alſo, it cannot follow that they are applicable to each other.

8. *Principle.*

865. From two affirmative premiſes, a negative concluſion cannot be drawn; for, if one of the expreſſions is applicable to the middle term, in one of the premiſes, and the other in the other, they cannot be inapplicable to each other in the concluſion.

866. Every ſyllogiſm ſhould be conſtituted agreeably to theſe principles; and the premiſes and concluſion ſhould be formed according to one or other of the following rules.

RULES.

PREMISES.	The concluſion may be,
1.	
867. From two general affirmative propoſitions,	A general affirmative.
2.	
868. Two general affirmatives,	A particular affirmative.
3.	
869. One general affirmative, and one particular,	A particular affirmative.
4.	
870. One general affirmative, and one general negative,	A general negative.
5.	
871. One general affirmative, and one general negative,	A particular negative.
6.	
872. One general affirmative and one particular negative,	A particular negative.
7.	
873. One general negative, and one particular affirmative,	A particular negative.

Examples

Examples of theſe Rules.

Of the 1ſt.

874. All animals are mortal, all men are animals, therefore all men are mortal.

Of the 2d.

875. All ſciences are uſeful, all ſciences are difficult, therefore ſome difficult things are uſeful.

Of the 3d.

876. All traitors deſerve puniſhment, ſome Chriſtians are traitors, therefore ſome Chriſtians deſerve puniſhment.

Of the 4th.

877. Nothing ſhameful ſhould be practiſed, all fraud is ſhameful, therefore no fraud ſhould be practiſed.

Of the 5th.

878. All attempts to make mankind happy, are praiſe-worthy, no ſuch attempts have hitherto

hitherto been ſucceſsful, therefore ſome praiſe-worthy attempts have not been ſucceſsful.

Of the 6th.

879. All amuſements afford pleaſure, but ſome amuſements are not proper, therefore ſome pleaſures are not proper.*

Of the 7th.

880. No liar is worthy of credit, ſome Jews are worthy of credit, therefore ſome Jews are not liars.

Examples of ſingular *Syllogiſms.*

Of the 1ſt Rule.

881. *The only ſon of Philip king of Macedon,* (or whoever was the only ſon of Philip), *conquered the Perſian empire*; *Alexander was the only ſon of Philip, therefore Alexander conquered the Perſian empire.*

Of the 2d.

882. *Luxury introduced effeminacy, effeminacy occaſioned the ruin of the Perſian empire, there-*

* As gladiatorial ſhews, bull baiting, &c.

fore

fore luxury introduced that which occaſioned the ruin of the Perſian empire.

Here *luxury and effeminacy* are conſidered as ſingle objects, therefore the propoſitions are ſingular.

Of the 3*d.*

883. *Anacharſis was a Scythian, Anacharſis was a philoſopher, therefore ſome philoſopher was a Scythian; or therefore ſome Scythian was a philoſopher.*

Of the 4*th.*

884. *The practice of the doctrine of Chriſt leads to final happineſs, the practice of the Epicurean doctrine does not lead to final happineſs, therefore the practice of the Epicurean doctrine differs eſſentially from that of the Chriſtian doctrine.*

Practice is conſidered as a ſingle object.

Examples of definite *Syllogiſms.*

Of the 1*ſt Rule.*

885. *Civil diſſenſions cauſed the ruin of the Grecian ſtates; trifling intereſts produced* THOSE *diſſenſions,*

diſſenſions, therefore trifling intereſts cauſed the ruin of the Grecian ſtates.

This ſyllogiſm appears to me juſt, though two cauſes are aſſigned of the ruin of the Grecian ſtates, the one immediate, and the other diſtant and ultimate, as they are both connected with each other, and *qui eſt cauſa cauſæ eſt cauſa cauſati.*

886. The firſt propoſition, though indefinite, is equivalent to a particular propoſition, namely, to *ſome* civil diſſenſions; not all thoſe that happened in a courſe of ages, but *thoſe* that exiſted during the reign of Philip of Macedon; the ſecond propoſition is alſo in appearance particular, for it was the trifling intereſts that then exiſted, and not thoſe that had long before exiſted, that produced theſe diſſenſions. The term *theſe*, renders the propoſition definite; and the ſyllogiſm developed runs thus: Some civil diſſenſions cauſed the ruin of the Grecian ſtates; ſome trifling intereſts produced theſe diſſenſions, therefore *theſe* trifling intereſts were the cauſe (or the ultimate cauſe) of the ruin of the Grecian ſtates.

SECTION

SECTION II.

OF VICIOUS OR IRREGULAR SYLLOGISMS.

887. A vicious or irregular ſyllogiſm, is that in which any of the principles or rules of ſyllogiſtic reaſoning is tranſgreſſed. Commonly, it is ſome or other of the principles that are violated, though any rational perſon may commonly diſcern their fallacy, yet that is not ſufficient when we argue with an obſtinate opponent; the principle or rule tranſgreſſed, muſt be pointed out. Hence, I here give ſome examples.

Example 1ſt.

888. *All Engliſhmen are lovers of liberty, no Dutchman is an Engliſhman, therefore no Dutchman is a lover of liberty.* Here the 6th principle is violated; *lovers of liberty* being the predicate of an affirmative propoſition, is taken particularly in the firſt premiſe; yet it is taken univerſally in the concluſion, being the predicate of a negative propoſition.

Example

Example 2d.

889. An apparent exception to the 6th principle. *Commoners alone are eligible into the lower houſe of parliament; no peer is a commoner, therefore no peer is eligible into the lower houſe of parliament.* This ſyllogiſm is regular. Here *eligible,* &c. is apparently taken particularly in the firſt premiſs, being the predicate of an affirmative propoſition. But, it being an *excluſive* propoſition, it includes a negative, being equivalent to commoners are eligible, and *none but commoners are eligible,* &c. therefore it is taken generally in the firſt premiſs, being the predicate of a negative propoſition, as it is in the concluſion.

Example 3d.

890. *Some commoners are merchants, no peer is a commoner, therefore no peer is a merchant.* Here the violation of the 6th principle is evident, merchant being expreſſly particular in the firſt premiſs, and general in the concluſion.

Example

Example 4th.

891. *Every metal is a mineral, every ſtone is a mineral, therefore every ſtone is a metal.* Here the 5th principle is violated; *mineral,* which is the middle term, not being taken generally in either of the premiſes, it being the predicate of an affirmative propoſition, (and conſequently to be taken particularly) in each of them.

Example 5th.

892. *All animals were in Noah's ark; Bucephalus was an animal, therefore Bucephalus was in Noah's ark.* Here the 4th principle is tranſgreſſed; for *animals,* the middle term, means evidently the animals exiſting at the period of the flood, in the firſt propoſition, and in the 2d, it denotes an animal, exiſting many ages after the flood; to ſay nothing of the falſehood of the firſt propoſition, for only pairs of each ſpecies were in the ark; but here the form only is in queſtion.

Example 6th.

893. *He who does not ſtudy will not become learned; Titius does not ſtudy, therefore Titius will not become learned.* This ſyllogiſm is perfectly regular, though apparently contrary to the 7th principle; for, the firſt propoſition is equivalent to an excluſive propoſition, as *ſtudents alone will become learned*; that is, ſtudents, and none but ſtudents, will become learned; but *Titius is not a ſtudent*, therefore Titius will not become learned.

SECTION III.

GENERAL CONSEQUENCES RESULTING FROM THE SYLLOGISTIC FORM.

1ſt.

894. That the ſyllogiſm being in form, that is duly conſtructed, if the premiſes be *true*, the conſequence muſt alſo be *true*, for it is contained implicitly in the premiſes; or, in other words, a *falſe* concluſion cannot be drawn from *true* premiſes.

2d.

2d.

895. If both or any of the premiſes be *falſe*, a true concluſion cannot be drawn from them, for a true concluſion cannot be contained in ſuch premiſes; truth and falſehood being incompatible with each other.

3d.

896. If both the premiſes be poſſible, neceſſary, certain, or probable, the concluſion alſo muſt be poſſible, neceſſary, probable, or certain; but if one of them be barely poſſible or probable, the concluſion will be barely poſſible or probable, and *a fortiori* it muſt be ſo, if both the premiſes be barely poſſible or probable; for the connexion with the middle term is barely poſſible or probable, as the caſe may be.

Example.

897. If the barometer falls we ſhall have rain; but the barometer has fallen, therefore we ſhall have rain.

Here the 2d propoſition is certain, but the firſt is only probable, therefore the concluſion is only probable.

898. If both the premiſes be barely probable, the concluſion will be only the probability of a probability.

Example.

899. I have been told the barometer has fallen, (that it has fallen as I am told;) but if the barometer has fallen, we ſhall have rain, therefore we ſhall have rain.

Here the probability of rain is compounded of the probability of the barometer's having fallen, and of the probability that this fall will be followed by rain.

4th.

900. Converſely if the *conſequence* be duly extracted from the premiſes, theſe muſt poſſeſs the ſame qualities as the conſequence, as to *truth* or *falſehood*, *poſſibility*, *certainty*, or *probability*.

SECTION IV.

OF COMPLEX SYLLOGISMS.

901. A complex ſyllogiſm is that in which the applicability of two expreſſions to each other, is inferred from the applicability of one of them to the middle term, and the connexion of the other with the middle term. Or, ſecondly, by ſhewing the applicability of one of them to the middle term, and that the other is compriſed within the general ſignification of the middle term.

Hence we have two caſes, of each of which I ſhall give examples. Yet, in reality, this complexity is only in the mode of expreſſing the propoſitions, for in the mind, all theſe ſyllogiſms are ſimple, as I ſhall ſhew in each caſe. Therefore, if any intricacy occurs, they ſhould be ſimplified. They are by far the moſt uſual, and therefore deſerve the greater attention.

1ſt Example of the firſt Caſe.

902. The evils ariſing from war are numerous, yet wars are often juſt; therefore, the

evils ariſing from ſome juſt actions are often numerous.

This is ſimplified thus, *war is the ſource of numerous evils, yet ſome wars are juſt, therefore ſome juſt actions are the cauſes of numerous evils.*

Example 2d.

903. The ſtrongeſt motives to a virtuous conduct are to be found in the new Teſtament. A virtuous conduct would conſtitute the happineſs of ſociety; therefore, the ſtrongeſt motives to what would conſtitute the happineſs of ſociety, are found in the new Teſtament.

This is ſimplified thus, *a virtuous conduct is moſt ſtrongly promoted, by motives to be found in the new Teſtament; a virtuous conduct would conſtitute the happineſs of ſociety, therefore, what would conſtitute the happineſs of ſociety, is moſt ſtrongly promoted by motives to be found in the new Teſtament.*

Example 3d.

904. Chriſtianity forbids ſervants to obey ſuch commands of their maſters, as are contrary

trary to the Divine law. Certain commands of maſters, are contrary to the Divine law; therefore, Chriſtianity forbids ſervants to execute certain commands of their maſters.

The firſt propoſition is exceptive, and the ſyllogiſm is ſimplified thus: *Chriſtianity allows ſervants to execute all the commands of their maſters,* EXCEPT *ſuch as are contrary to the Divine law; certain commands of maſters fall within the exception, therefore, Chriſtianity does not allow ſervants to execute certain commands of their maſters.*

Here the exception *commands contrary to the Divine law,* are the middle term. The concluſion is negative, though the premiſes are apparently affirmative, but the firſt propoſition being exceptive, includes a negative; for, being developed, it runs thus: Chriſtianity allows ſervants to execute the commands of their maſters, but *does not* allow them to execute ſuch commands as are contrary to the Divine law.

1ſt Example of the Second Caſe.

905. To protect their ſubjects is the duty of kings; George the 3d is a king, therefore

to protect his ſubjects is the duty of George the 3d.

It is ſimplified thus: *kings are obliged to protect their ſubjects. George the 3d is a king,* (that denomination is ſuited to him,) *therefore he is obliged to protect his ſubjects.*

Example 2d.

906. The puniſhment of crimes, is neceſſary for the welfare of ſociety. Murder is a crime, therefore the puniſhment of murder is neceſſary for the welfare of ſociety.

It is ſimplified thus: *crimes are neceſſarily to be puniſhed for the good of ſociety, murder is a crime, therefore, &c.*

Example 3d.

907. The Divine law requires legal obedience to kings. George the 3d is a king, therefore the Divine law requires legal obedience to George the 3d.

It is ſimplified thus: *kings are entitled to reſpect by the Divine law, George the 3d is a king, therefore, &c.*

Examples

Examples of ſome Irregular Syllogiſms.

1ſt.

908. We ought to believe the ſcriptures; tradition is not the ſcripture, therefore we ought not to believe traditions.

Simplified thus, *the ſcripture is entitled to our belief; tradition is not the ſcripture, therefore tradition is not entitled to our belief. Entitled to our belief,* is the predicate of the firſt propoſition, and is taken particularly; but in the concluſion, it is taken generally, being the predicate of a negative propoſition.

2d.

909. He that ſays the French government is a government, ſays what is true; but he that ſays the French government, is a *good* government, ſays that it is a government; therefore, he that ſays the French government is a good government, ſays what is true.

Here, *he that ſays,* is the ſubject of the firſt propoſition. *The French government is a government,*

vernment, is the middle term; and *ſays what is true*, is the predicate. In the ſecond propoſition the ſubject is, *he that ſays the French government is a good government*; and, *ſays* (or is ſaying) is the predicate, and *it is a government*, is the middle term. Here, then, there are five terms, viz. two ſubjects, two predicates, and a middle term. The ſecond ſubject and the firſt predicate only, are found in the concluſion. And the middle term is taken twice particularly; ſo that it treſpaſſes on every principle.

3d.

910. A Mahometan is not what a Chriſtian is. Now a Chriſtian is a man, therefore a Mahometan is not a man.

Here a *Mahometan* is the ſubject of the ſyllogiſm, *what* (that is *that being which*) is the predicate, and *a Chriſtian is*, the middle term, connected with the predicate by the relative *which*, indicating the relation of *appoſition*. In the ſecond propoſition, the middle term is the ſubject, and *a man* the predicate, but it is here taken particularly, being taken according to its comprehenſion, but not according

cording to its whole extenſion. And in the concluſion it is taken generally, being the predicate of a negative propoſition, in contradiction to the ſecond rule. There are alſo two predicates; that of the firſt propoſition is omitted in the concluſion. It appears to me alſo, that the firſt predicate is ambiguous; for, *is not what a Chriſtian is*, may be underſtood *that particular being which a Chriſtian is*, or *any thing which a Chriſtian is*. Taken in the firſt ſenſe, it would be particular notwithſtanding the negative, but taken in the ſecond ſenſe it would be general, and I believe that, ſtrictly ſpeaking, it ſhould ſo be taken. In a word, the predicate is taken particularly in the ſecond propoſition, and generally in the concluſion, the concluſion being negative.

4th.

911. To kill a man is a ſin. A murderer is a man, therefore to kill a murderer is a ſin.

In the firſt propoſition *to kill* is the ſubject, *a man* is the middle term, and *a ſin* is the predicate. The middle term is connected with the ſubject by the *relation of termination*.

In

In the ſecond propoſition, a *murderer* is the ſubject, and *a man* the predicate, but the ſubject in its very denomination involves a *criminality deſerving death*, and in this ſenſe only the predicate is applicable to it. The ſecond propoſition, thus developed, runs thus: *A man guilty of murder is a man.* Now *a man* in the firſt propoſition denotes an *innocent man*, for every man muſt be ſuppoſed innocent until his guilt is proved; but in the ſecond propoſition, man is expreſſly declared to mean a *guilty man*, therefore, the middle term is taken in two different ſenſes contrary to the firſt rule, and conſequently the ſyllogiſm is vitious.

According to Dr. Watts, from whom this ſyllogiſm is taken, p. 289, the word *kill*, in the firſt propoſition, ſignifies to kill *unjuſtly* or *illegally*, but in the concluſion it is taken *generally*, and therefore not good.

The word *to kill* in the Divine command, denotes in the Hebrew language, killing unjuſtly, and conſequently ſlaying an *innocent man*, as Grotius informs us. Man is the middle term, it denotes therefore an innocent man in the firſt propoſition; but in the

ſecond

ſecond propoſition it denotes a man generally, abſtracting from his guilt or innocence, therefore it is not taken in the ſame ſenſe in both, and thus violates the 4th principle.

SECTION V.

OF THE MODE OF ARGUMENTATION CALLED *reductio* AD ABSURDUM OR AD IMPOSSIBILE.

912. The ancients had many intricate rules for converting ſyllogiſms couched in one form, into another more intelligible, which, in the preſent treatiſe, are all uſeleſs except one, which was called *reductio ad abſurdum vel ad impoſſibile*. This they applied when no other mode of reduction could be applied. As this mode of demonſtration is frequently uſed by Euclid and other mathematicians, I ſhall here explain its artifice. If the premiſes were admitted, but, on account of their obſcurity or intricacy, were difficultly combined, (as ſometimes happens in geometry,) and conſequently the evidence of the concluſion not clearly diſcerned, they then reaſoned thus: If the concluſion

concluſion be falſe, then a propoſition contradictory to it muſt be true, and if it be true, then one of the admitted premiſes muſt be falſe.

Example.

All fraud is prohibited; ſome ſorts of traffic are not prohibited, therefore ſome ſorts of traffic are not fraudulent.

Now if this concluſion be denied, after allowing the premiſes to be true; then a propoſition that contradicts this concluſion, viz. *all ſorts of traffic are prohibited*, muſt be true, and yet it is both abſurd and contradictory to one of the above admitted premiſes, which I ſhew thus.

All fraud is prohibited; all ſorts of traffic are fraudulent, therefore all ſorts of traffic are prohibited. Now this concluſion is fairly extracted from the premiſes, and yet it is clearly contradictory to the ſecond propoſition of the firſt ſyllogiſm.

913. It is true that the ſecond propoſition of this ſyllogiſm was not admitted, but ſince the concluſion was admitted, any of the premiſes, from which it is ſtrictly deducible, muſt alſo

alſo be admitted. For, ſince the concluſion is contained in the premiſes, if the concluſion be true and regularly drawn, the premiſes muſt alſo be true.

914. To this it may be objected, that mathematicians frequently draw true conſequences from falſe, and even impoſſible ſuppoſitions; but it muſt be conſidered, that theſe ſuppoſitions being admitted, involve ratios or relations, which truly and neceſſarily ariſe from thoſe ſuppoſitions; thus if a man exiſted with four heads, it would neceſſarily follow, that he had eight eyes and eight ears. And that the number of his eyes and ears was equal, &c. but then this conſequence ſprings from this ſuppoſition, as *admitted to be true*, and not from any connexion with it as far as it is falſe.

915. The ancient mode of ſcrutinizing ſyllogiſms, is applicable only to ſimple ſyllogiſms, and not to the complex. The modern has the advantage in this reſpect, but it is not accurate.

SECTION VI.

OF THE SCRUTINY OF SYLLOGISMS.

916. The ſureſt method therefore of examining the truth or falſehood of every ſyllogiſm, is to ſimplify it by lopping off all ſuperfluous parts, and to compare its eſſential terms with the general rules that relate to them; as ſhewn both with reſpect to the fallacies of ſimple and complex ſyllogiſms. In making this analyſis, it will be proper to place the moſt general propoſition firſt.

Secondly, it will likewiſe be frequently advantageous to convert abſtract words into thoſe concretes of which they are the abridgement.

SECTION VII.

OF COMPOUND SYLLOGISMS.

917. A *compound* ſyllogiſm is that, whoſe conſtituent terms, or propoſitions, are variouſly intermixed

intermixed and connected by conjunctive particles. Of these the most worthy of notice, are the *copulative*, the *disjunctive*, and the *conditional*.

Of Copulative Syllogisms.

918. Copulative syllogisms are those which affirm or deny the connexion of two subjects or two predicates in one proposition, by means of a copulative conjunction, and reverse or omit that connexion in the second proposition.

Affirmative.

919. In these the connexion is affirmed in the first proposition, but one branch only of the connexion is affirmed or denied, or one affirmed and the other denied in the second.

Example 1st.

920. Meekness and humility always accompany each other; Moses was meek, therefore he was humble.

Example 2d.

921. Honesty and prodigality never accom-

pany each other; Cataline was prodigal, therefore he was not honeſt.

Example 3d.

922. A great ſtateſman muſt poſſeſs great ſagacity and ſtrict honeſty; Richlieu poſſeſſed great ſagacity but no honeſty, therefore he was not a great ſtateſman.

Note, if the ſecond propoſition were "Sully poſſeſſed both, therefore he was a great ſtateſman," this would be eſteemed a ſimple ſyllogiſm.

Example 4th.

923. The latitudes of London and of Paris are different; the latitude of London is 31° 30′, therefore this cannot be the latitude of Paris.

Negative.

924. A *negative conjunctive* ſyllogiſm, is that of which the firſt propoſition denies the compatibility of two predicates in the ſame ſubject. And the ſecond propoſition affirms the application of one of the predicates; and the

the concluſion thence denies the applicability of the other.

Example.

925. No man can be merciful and cruel; Cæſar was merciful, therefore he was not cruel.

926. Hence, if the concluſion be affirmative, the ſyllogiſm is irregular; for, if the ſecond propoſition ſhould deny the applicability of one of the predicates, it does not follow that the other is applicable to the ſubject, for neither may be applicable to it.

Example.

927. No man can be both avaricious and prodigal; Peter the great was not avaricious, therefore he was prodigal.

The fallacy of this concluſion is immediately diſcerned, as a medium exiſts between the two extremes here mentioned, and even in the firſt example, if it were aſſerted in the ſecond propoſition, that Cæſar was not cruel, it could not be concluded that he was merciful, for he might have been barely juſt.

928. Copulative ſyllogiſms are eaſily *reduced*

to ſimple ſyllogiſms, by altering the firſt propoſition without any alteration of the ſenſe; thus, in the firſt example of affirmative copulatives, we may ſay, *a meek man is always humble*. And in the third example we may ſay, a great ſtateſman ſhould be *ſagacious and honeſt*. *Richlieu was only ſagacious*, therefore *he was not a great ſtateſman*. So in negative copulatives we may ſay, *a merciful man cannot be cruel, &c.*

Of Disjunctive Syllogiſms.

929. A disjunctive ſyllogiſm is that in the firſt propoſition of which, the predicates are *disjunctively affirmed* of the ſubject, in the firſt premiſs; but *one* of them is affirmed in the ſecond propoſition and the *other* denied in the concluſion. Or converſely, *one* of them is denied in the ſecond propoſition, and the other affirmed in the concluſion.

930. Hence, a *denial* or *alteration* of the ſtatement of *one* of the predicates in the firſt propoſition, muſt occur either in the ſecond propoſition, or in the concluſion; the other predicate remaining unaltered.

Example.

Example.

931. The teſtimony of the apoſtles to the miracles of Chriſt, was either true, or it was falſe; but many circumſtances prove it *not* to have been falſe, therefore it was true.

Here, a *denial* of the ſtatement of *one* of the predicates of the firſt propoſition, occurs in the ſecond propoſition, for it is aſſerted *not to be falſe*, and in the concluſion, the other predicate, *it was true*, remains unaltered. And if the ſecond propoſition were, *but it was true*, then the denial or alteration would be made in the concluſion, *therefore it was* NOT *falſe*.

932. Hence the irregularity of the following ſyllogiſm. It either rains, or it does not rain; but it rains, therefore it does not rain.

933. Here there is no alteration of the ſtatement of the predicates; in the firſt propoſition the concluſion ſhould be, it does not rain, which being harſh language, ſhews that the predicates ſhould not be ſo propoſed, as to render the alteration of one of them harſh and uncouth; hence this ſyllogiſm ſhould be thus

ſtated: either it rains or it is dry weather; but it rains, therefore it is not dry weather.

934. Another general rule reſpecting theſe predicates is, that one or other ſhould be *applicable* to the ſubject, for if neither be applicable, the propoſition is falſe and ſhould be denied *in toto*.

935. Laſtly, the predicates ſhould be ſo oppoſed to each other, that no medium can be found between them. Thus it may be ſaid of Cæſar, *that he was either an uſurper or a lawful prince*. But if it were ſaid of Peter the Firſt, *that he was either the ally or the foe of England*, the propoſition would be falſe, for he was neutral.

Of Conditional Syllogiſms.

936. A conditional ſyllogiſm, is that of which the firſt propoſition contains two branches, connected by a conditional conjunctive, or its equivalent. The firſt branch contains the condition, and is called the *antecedent*, and the other branch the *conſequent*. So that the conſequence of the ſyllogiſm is exhibited in the latter part of the firſt propoſition.

Example.

Example.

937. If the powers veſted by the ſenate in Pompey were unconſtitutional, Cæſar was not an uſurper; but theſe powers were unconſtitutional, therefore Cæſar was not an uſurper.

938. Hence, if the *antecedent be granted to be true* in the ſecond propoſition, the conſequent muſt be allowed to be true in the concluſion, as in the above example.

939. And *if the truth of the conſequent be denied* in the ſecond propoſition, that of the antecedent muſt alſo be denied in the conſequence.

Example.

940. If the Alcoran be true, the Mahometan religion is true; but the Mahometan religion is falſe, therefore ſo is the Alcoran.

941. But *if the antecedent be denied* in the ſecond propoſition, the conſequent may ſtill be true; for other reaſons, independent of its connexion with the antecedent, may render it ſo.

Example.

942. If Nero burned Rome, he was execrably wicked; but he did not burn Rome, therefore he was not execrably wicked.

943. Here the falſehood of the concluſion is apparent; and therefore the conſequent is true, notwithſtanding the falſehood of the antecedent.

944. If the *conſequent be true and granted* in the ſecond propoſition, yet the truth of the antecedent cannot be inferred from it, for the conſequent may not be neceſſarily deduced from the antecedent only.

Example.

945. If princes ſet bounds to their ambition they are happy; Trajan was happy, therefore he ſet bounds to his ambition.

This conſequence is falſe, for he ſet no bounds to his ambition.

946. Several other complex propoſitions may often be converted into the conditional, and conſidered as ſuch, as *exceptives*; thus *unleſs you repent you cannot be ſaved*; or *cauſal*,

as

as *all events are neceſſary becauſe decreed*; or *complex*, as *he that does not ſtudy cannot become learned.*

SECTION VIII.

OF OTHER FORMS OF ARGUMENTATION.

Theſe it will be ſufficient to deſcribe.

947. An *enthymen* is a ſyllogiſm, one of whoſe premiſes is omitted. Thus *the apoſtles aſſerted that Chriſt had riſen from the dead, therefore he really did riſe after his death.*

948. An *epicherema* is a ſyllogiſm, to one or both of whoſe premiſes, its proof is added. *The apoſtles aſſerted that Chriſt had riſen from the dead, for they ſaw and converſed with him after his reſurrection, therefore his reſurrection was not a fiction.* The oration of Cicero for Milo may be reduced to an epicherema. See Chambers, *epicherema.*

949. *Sorites* is a ſeries of propoſitions ſo diſpoſed, that the predicate of each is the ſubject of the next, until the concluſion is formed of the laſt predicate, and the ſubject of the firſt propoſition. This argument is much

much uſed by geometricians, and vehement orators.

Example.

950. The apoſtles proclaimed the reſurrection of Chriſt; proclaiming the reſurrection of Chriſt, they were perſecuted by the Jews, and gained nothing; being perſecuted, and yet gaining nothing, they muſt have been ſincere; being ſincere they were therefore worthy of credit.

951. The firſt branches of this argument, namely, the proclamation &c. and the perſecution, being matters of fact, cannot be proved but by teſtimony; but the laſt being an inference from reaſon, may be converted into a ſyllogiſm; thus *they who ſuffered much and gained nothing by their aſſertion of a fact they witneſſed, muſt be deemed ſincere, but the apoſtles ſuffered much, &c. therefore they were ſincere.*—Then *whoever are ſincere (that is, have no motive to aſſert a falſehood,) are worthy of credit, but the apoſtles were ſincere, therefore,* &c.

952. Hence, where not matters of fact but mere reaſoning, is the ſubject of this argument,

it

it is in fact abridged ſyllogiſms, each ſtep conſiſting of the middle term of another ſyllogiſm, connected with the concluſion of the laſt. Thus in the following Sorites, *a miſer covets much, he that covets much wants much, he that wants much is miſerable, therefore a miſer is miſerable.* The ſyllogiſms are, *a miſer covets many things, he that covets many things wants many things, therefore a miſer wants many things.* Again, *he that wants many things is miſerable, but a miſer wants many things, therefore, &c.*

953. But *note*, that to render this argument concluſive, no part of it ſhould be equivocal; thus the following is faulty: *he that drinks much ſleeps well, he that ſleeps well does no evil, he that does no evil pleaſes God, therefore he that drinks much pleaſes God.* For, it is evident that he alone that does no evil, having it in his power to commit or avoid it, pleaſes God, otherwiſe ſtones would pleaſe God.

954. A *dilemma* is an argument conſiſting of two or more branches, into which the ſubject is divided, and extending to the whole the concluſion formed on each branch.

Example.

Example.

955. An ancient philoſopher, to prove the miſery of human life, reaſoned thus: men either obey their paſſions or they reſiſt them; if they obey them they muſt be unhappy, for they can never ſatisfy them; if they reſiſt them, they muſt alſo be unhappy, as they muſt live in a conſtant ſtate of ſelf denial, therefore human life is neceſſarily miſerable.

956. To render a dilemma perfect, its diſjunctive branches ſhould exactly include the whole ſubject, ſo as to exclude any other branch, and the concluſion of each ſhould be neceſſary. Hence the following is defective:

Example.

957. A wife is either beautiful, and then ſhe will make her huſband jealous, or ſhe is deformed, and then ſhe will diſguſt him; then a man ſhould take no wife. Here it is plain that there is a medium betwixt beauty and deformity, and that women may be beautiful, and yet ſo modeſt as to afford no juſt cauſe of jealouſy.

958. *Induction* is an argument, by which from

from the obſervation of any property in numerous individuals of the ſame ſpecies, it is inferred that it exiſts in all the other individuals of that ſpecies; or by obſerving certain properties in all known ſpecies of bodies of the ſame claſs, it is inferred to exiſt in all other unknown ſpecies of that claſs; or by obſerving certain properties in all known bodies, it is inferred to exiſt in all bodies; ſo that in fact, except with regard to individual ſubſtances of the ſame ſpecies, it is only an argument from analogy.

SECTION IX.

A VINDICATION OF THE SYLLOGISTIC MODE OF REASONING.

959. Having treated ſo amply of ſyllogiſms, and thereby claimed ſo much of the attention of the reader to their ſtructure, and the laws of their conſtitution, it cannot be deemed unreaſonable to vindicate their utility againſt the objections of ſo great a maſter of reaſoning as Mr. Locke. The principal writers amongſt ourſelves it is true, as Watts, Duncan, and lately

lately Mr. Dralloc, have paid no regard to the cenſures paſſed on this mode of reaſoning, for they have not overlooked the laws by which they are governed; but they have taken no notice of the objections made to their uſe, which compels me to undertake the taſk of removing them.

960. Mr. Locke on entering on this ſubject, barely profeſſes to "entertain ſome "doubts, whether ſyllogiſm be the proper "inſtrument of reaſon, and the moſt uſeful "method of exerciſing this faculty." But he ſoon becomes more confident of its inutility; he tells us, "that if we obſerve the actions of "our own minds, we ſhall find that we "reaſon moſt clearly, when we only obſerve "the connexion of the proof, without reduc-"ing our thoughts to any rule of ſyllogiſm, "and therefore we may ſee many men who "reaſon moſt juſtly, who know not how to "make a ſyllogiſm." To perceive the fallacy of this objection, it is only neceſſary to obſerve, that a ſyllogiſm is nothing more than a ſtatement of two propoſitions, from which a third may be inferred; now the connexion or diſconnexion of which Mr. Locke ſpeaks, cannot

be

be diſcerned, but by means of two ſuch propoſitions, either explicitly expreſſed, as in a formal ſyllogiſm, or implicitly contained in a compound propoſition. Thus, if I mean to prove that a tyrant cannot be happy, the proof I adduce of the diſconnexion of happineſs and tyranny, is the fact of a tyrant's being hated by his ſubjects, and thus reaſon ſyllogiſtically. *A ſovereign hated by his ſubjects cannot be happy, but a tyrant is a ſovereign hated by his ſubjects, therefore a tyrant cannot be happy.* The common inartificial manner of expreſſing this argument is, *a tyrant cannot be happy, for he is hated by his ſubjects*; but this is a compound cauſal propoſition which equally involves two propoſitions, as ſhewn No. 198, it being preſuppoſed, and therefore needleſs to aſſert the general propoſition, that a ſovereign hated by his ſubjects cannot be happy. The only difference, then, betwixt this form and the former ſyllogiſm, is, that in the ſyllogiſm nothing is preſuppoſed, every propoſition on which the inference is grounded is fully expreſſed; but in the compound martificial form, one propoſition is preſuppoſed, and its expreſſion therefore deemed needleſs,

and

and the other two are involved in one phraſe. In the *mind* the connexion with the proof is exactly the ſame in both forms. In the former, the reaſoning is developed in expreſs words, in the latter enveloped. In the former, each propoſition is diſtinct, ſo that if the connexion or diſconnexion be controverted, the opponent may deny either propoſition; the latter has the advantage of being more conciſely preſented, but the opponent, allowing ſome part of the compound propoſition to be true, is more embarraſſed to diſentangle it from the part he may deem falſe. This inconvenience Mr. Locke himſelf has experienced, in his diſpute with the biſhop of Worceſter, which obliged him to have recourſe to a ſyllogiſm. He entirely miſtakes the uſe of ſyllogiſtic rules, in ſtating, that it is imagined that men learn thereby to reaſon more juſtly. This is far from being their general uſe; they direct men, not how to reaſon, but to expreſs the purport of an argument more diſtinctly; to detect errors in reaſoning, and to exhibit in a narrow compaſs the ſeveral propoſitions which, in a long diſcourſe, may have been ſo dilated, as to eſcape the memory or diſtract the

the attention. In ſhort and plain arguments, where no contradiction is apprehended, the ſyllogiſtic form would undoubtedly be ſuperfluous, tedious, and even ridiculous; but ſtill the ſyllogiſm exiſts in the mind, elſe the reaſoning would not be juſt; the mind diſcerns the connexion of the extremes and middle term *ſimultaneouſly*; but it can be expreſſed in words, only ſucceſſively, and the forms of expreſſion may be more or leſs explicit.

961. In ſome caſes the ſyllogiſtic art teaches how to reaſon; for after the properties of a ſubject are known, it teaches to range them in the form moſt proper to ſolve the queſtion, as will be ſhewn hereafter.

962. The ſyllogiſtic form not only ſhews how to expreſs an argument moſt diſtinctly, but alſo in what reſpect the arguments of an adverſary are fallacious: this uſe is ſo important, that in many, even amicable controverſies, carried on in a looſe and diffuſe manner, the reduction of arguments to the ſyllogiſtic form has been demanded. Thus, in the famous conference of *Beza*, with the Lutheran profeſſor *Jacobi*, at Montbeliard,* *Beza*

* Colloq. Montis pel gartens, 45; and Bayle, *Beza*, Engliſh, p. 792.

entreated him to preſent his arguments in the ſyllogiſtic form.

963. This uſe is in ſome ſort acknowledged by Mr. Locke, but reſtricted to caſes which very ſeldom occur: his words are, "their (ſyllogiſms) chief and main uſe is in "the ſchools, where men are allowed, without ſhame, to deny the agreement of ideas "that do manifeſtly agree." This reflection on the ſchools, is certainly too general; ſuch a ſhameleſs denial never happens, except where it is imagined ſome ſacred myſteries of religion are concerned: theſe ſome think contrary to, others above reaſon, and yet true; "or out of the ſchools to thoſe who from "thence have learned, without ſhame to deny "the connexion of ideas, which even to "themſelves is visible.'

Can this apply to ſuch men as Beza and Jacobi? can it apply to Mr. Locke himſelf, who, in his Reply to the Biſhop of Worceſter,† to refute his lordſhip's aſſertion, that the nature of man in Peter, is the common nature of man, &c. ſays, "whatever is in Peter "exiſts in Peter, but whatever exiſts in Peter

* It not this the language of an inquiſitor?

† P. 135, 1ſt edition, 8vo.

"is

"is particular, and it confounds my under-
"ſtanding to make a general particular;"
which in effect is the ſame as ſaying, *there-
fore a general or common nature does not exiſt in
Peter.* His reaſoning, in the whole of this
controverſy, would have been infinitely leſs
tedious and perplexed, if he had deigned to
adopt the preciſion of the ſchools.

964. But, continues Mr. Locke, "to infer
"is nothing, but by virtue of one propoſition
"laid down as true, to draw in another as
"true; that is to ſee, or ſuppoſe, ſuch con-
"nexion of the two ideas of the inferred
"propoſition."

This account of the nature of inference is
ſurely incorrect: in all inferences there ne-
ceſſarily are three propoſitions, one ſtating
the agreement of the middle term with one
of the extremes, and another ſtating its agree-
ment with the other extreme. The ſecond
propoſition, therefore, is not the inference;
this reſults from the joint conſideration of
both propoſitions.

965. To explain himſelf further, our illuſ-
trious author lays down the following pro-
poſition: *men ſhall be puniſhed in another*

world, and thence (ſays he) let it be inferred, *that men can determine themſelves*. Here, indeed, two propoſitions are laid down, but it cannot be ſaid, that the ſecond is inferred from the firſt, the connexion not being as yet apparent; he continue, "the queſtion is, "whether the mind has made the inference "juſtly;" it ſurely could make none if it proceeded no further. "If it has made it by "finding out the intermediate ideas, and "taking a view of the connexion of them "placed in a due order, it has proceeded ra-"tionally." Now the connexion and true order of the intermediate ideas that draw in (as he calls it) the concluſion, he ſtates thus, "Men ſhould be puniſhed—God the puniſher "—juſt puniſhment—the puniſhed guilty—"could have done otherwiſe—freedom—ſelf "determination. Now," ſays he, "I aſk "whether the connexion of the extremes, "(that is, betwixt the idea of men's puniſh-"ment in the other world, and freedom and "ſelf-determination,) be not more clearly "ſeen in this ſimple and natural diſpoſition, "than in the perplexed repetitions and jumble "of five or ſix ſyllogiſms."

966. I frankly own, that the mode of reaſoning here exhibited ſeems to me much leſs clear, and apparently leſs connected, than if the ſubſtance of it had been preſented in the ſyllogiſtic form; thus, *men ſhall be puniſhed in the next life, and God will be the puniſher. Now puniſhments inflicted by God muſt be juſt, therefore that puniſhment muſt be juſt.* Again, *if the puniſhment be juſt, the puniſhed muſt be guilty; but God being the puniſher, the puniſhment muſt be juſt, therefore the puniſhed muſt be guilty.*—3d. *If the puniſhed are guilty, they muſt have had the power of acting otherwiſe than they have acted; but that they are guilty has been juſt ſhewn, therefore they had the power of acting otherwiſe.* Laſtly, *the power of acting otherwiſe than one has acted, is what is called freedom, or the power of ſelf-determination; but theſe men have had the power of acting otherwiſe, as juſt ſeen; therefore they had the power of ſelf-determination.* Here there but are four ſyllogiſms and no jumble; I appeal to every reader, whether the reaſoning be not clearer, and its links better connected, than in the view exhibited by our author.

967. 2dly, Our author thinks it an inſu-

perable objection to ſyllogiſms, that many, all over the world, reaſon with great clearneſs and accuracy, without knowing what a ſyllogiſm is. And, in truth, moſt mankind reaſon juſtly on the common incidents of life, without knowing what a ſyllogiſm is, juſt as they ſpeak without knowing the laws of ſyntax, and ſpeak proſe without knowing what proſe is; yet, though they know not the word, they practiſe what it ſignifies, when from two propoſitions they infer a third; and this they muſt do, whenever they reaſon, in whatever form or garb of words the propoſitions may be enveloped. Yet, how often do they reaſon inaccurately, without perceiving that they do ſo, by not reducing their opinions to the ſyllogiſtic form? Thus moſt nations are perſuaded, that they ſhould give implicit credit to the opinions of their anceſtors: if you aſk them whether they ſhould believe them, whether true or falſe? many will anſwer, (though with ſome heſitation, as I have often obſerved,) that they believe them becauſe they are true. Now a ſingle ſyllogiſm will diſcover the weakneſs of this ground of belief; *theſe are the opinions of our anceſtors:*

all

all the opinions of our anceſtors are true, therefore theſe are true.

The ſecond propoſition will (as it has often done) embarraſs them: to allow it, they plainly perceive, would be to ſuppoſe their anceſtors infallible, and conſequently beings of a ſuperior nature; to deny it, would be to ſubvert the foundation of their belief. It muſt reach to all their opinions or to none, ſince no line of diſtinction is drawn.

968. But Mr. Locke tells us, "a country "gentlewoman eaſily underſtands it is not "ſafe for her to go abroad thinly clad, when "it blows from the S.W. and threatens to "rain, without forming a ſyllogiſm, and ſees "the probable connexion of that wind with "rain, and of rain with catching cold, with-"out the fetters of ſeveral ſyllogiſms."

Here we plainly ſee the ſource of his miſtake; he ſuppoſes, that ſyllogiſms formed in the mind, muſt be incumbered with the ſame train and ſucceſſion of words in the mind, as when produced in language; whereas, the contrary is evident;* ſince the expreſſion of

* See the excellent and profound remarks of Dr. James Gregory, 2 Mem. Edinb. 240 and 241.

the propoſitions, ſubſtantially the ſame, is nevertheleſs quite different in different languages and idioms. Thus, in Engliſh and Latin, two negatives are equivalent to an affirmative: in French and Greek, they are not, but rather deny more ſtrongly. It appears to me, that things, and the ſentiments of men concerning them, are conceived all over the world, in the ſame uniform manner; the expreſſion alone is varied, by reaſon of the ſundry occaſions, which originally gave riſe to it, and rendered it intelligible. When propoſitions contain nothing unuſual, the connexion of many of them with each other, is ſeen all at once, as is acknowledged by Locke himſelf.* "How, as it were, in an inſtant, do "our minds, with one glance, ſee all the "parts of a demonſtration, which may very "well be called a long one, if we conſider the "time it will require to put it into words, "and ſtep by ſtep to ſhew it to another." It is in this faculty of ſeeing the connexion of many things at once, that mental capacity and comprehenſion conſiſts; a faculty whoſe

* Book ii. chap. ix. ſec. 10.

extent

extent varies in various minds, and in the ſame mind varies as to the relations it extends to; but of this elſewhere. It is not then contended, that mental ſyllogiſms ſhould contain thoſe repetitions that are neceſſary, or at leaſt ſhould be briefly ſuggeſted, in the vocal, much leſs thoſe *ſubſumptive* and illative words, *but, now, therefore*. Nor even, in the vocal expreſſion of reaſoning, formal ſyllogiſms need be adduced; unleſs in diſputation, where the points conteſted muſt be ſet forth with the utmoſt preciſion, or in reſuming the ſubſtance of a long diſcourſe, and preſenting its purport in the cleareſt and moſt compendious point of view. And thus it has been employed by the ableſt polemic writers; but as an inſtrument of reaſoning, its mental exiſtence is eſſentially neceſſary.

969. Our author however alleges, "that "in mathematical demonſtrations, the know-"ledge gained thereby, comes ſhorteſt and "cleareſt without ſyllogiſms;" yet Leibnitz, aſſuredly one of the moſt eminent mathematicians of his age, tells us, that Euclid's demonſtrations, are for the moſt part arguments, almoſt perfectly in form; and that when Euclid

Euclid apparently forms enthymemes, the propoſition ſuppreſſed will be found in the margin.* Wolfius, alſo an eminent mathematician, ſays, that nothing is diſcovered in mathematics but by means of ſyllogiſms.†

970. But (continues Mr. Locke,) "ſyllo-"giſms do not help us in finding out proofs, "or in making new diſcoveries; the rules of "ſyllogiſms ſerve not to furniſh the mind "with intermediate ideas, to ſhew the con-"nexion with remote ones." Neither do the algebraic rules teach us how to form an equation: are they therefore to be rejected? If ſyllogiſms do not teach us to find a connexion, (for its exiſtence preſuppoſes a connexion, whether real or imaginary,) at leaſt it teaches us, and forces us to examine and ſcrutinize a ſuppoſed connexion, by exhibiting the links betwixt which it is thought to exiſt, in the ſimpleſt form; nay, by attention to the properties of a ſubject, the mind is enabled, by

* Nouv. Eſſaies, p. 446.

† Log. p. 94. and Clairaut Geomet. Preface, p. 10. Dr. James Gregory, 2 Mem. Edinb. 223, ſays, mathematical demonſtration, as we find it in the ancient geometers, is but an abridged chain of ſyllogiſms.

aſſociation

aſſociation or otherwiſe, to diſcern a connexion, and draw a concluſion, the juſtneſs of which may afterwards be aſcertained, by caſting the whole into the ſyllogiſtic form.

971. Our great author ſtill objects, that "of whatever uſe ſyllogiſms may be in know-"ledge, they can be of none at all in proba-"bilities." In this alſo I muſt differ from him; it is in eſtimating probabilities, that its uſe is moſt frequent, and moſt neceſſary. How do we prove the truth of the books of the old Teſtament, but by aſſuming, that it is not probable that Jews ſhould invent, tranſmit from age to age, and even conſecrate, a hiſtory, in the main, ſo diſgraceful to their anceſtors. But a hiſtory of the Jews is ſo circumſtanced, therefore it is not probable that they have invented it, &c. Again, a hiſtory not invented, delivers facts as they really happened; ſince then the Jews did not invent it, the facts it contains muſt have really happened, therefore the hiſtory that contains them is true.

972. All juſt hiſtorical criticiſm, all ſpeeches, whether of the deliberative or judicial kind, may be reſolved into ſyllogiſms, and from them borrow their entire convictive force.

973. It

973. It is the latent ſtate in which ſyllogiſms form the foundation of reaſoning, that has ſo far impoſed on our great philoſopher, as to overlook their exiſtence. It ſhould ſeem as if he conſidered ſyllogiſms only in that ſimple, meagre, formal, unembelliſhed ſtate in which they are exhibited in the ſchools, and which is as neceſſary in exact diſputation as the ſimplification of equations in algebra, that the adverſary may diſtinctly ſee what propoſition he may grant, and what he ought to diſtinguiſh or deny, and hence the preciſion required by our law in ſpecial pleading, the ignorance of which, in many practitioners, occaſioned ſo much miſchief, as to compel the legiſlature, to allow leſs ſevere argumentation, but much more tedious and expenſive.

974. Nay, our author has carried his diſlike to the ſyllogiſtic forms ſo far, that he will not allow them the merit of diſcovering the weakneſs of an argument, though he owns he once thought them uſeful in that reſpect; but, on a ſtricter examination, he ſays he found, "that the coherence of an argument was "better ſhewn by ſubjecting each link to the "immediate view of the mind in its proper "place,

" place, whereby its connexion is beſt ob-
" ſerved, than by ſyllogiſms, which ſhew the
" incoherence only to thoſe that are verſed in
" *mood* and *figure*." Whether his manner of ſhewing this connexion, be clearer than the ſyllogiſtic, I leave to the determination of thoſe who may compare both modes of elucidation, No. 965 and 966. But, as to what he adds concerning *mood* and *figure*, I ſhall only ſay, that without any knowledge of them, the incoherence of an argument may indeed be felt, though without that or ſome equivalent knowledge, in what point an argument hitches, cannot be pointed out; yet in important debates, to be able to point out the rule tranſgreſſed, if any has been, or to ſhew that no rule has been tranſgreſſed, if the informality of an argument be inſiſted on, is ſurely a conſiderable advantage; thus, many injuries may be felt, without any knowledge of the law or ſtatute tranſgreſſed, but to be able to point it out, is highly advantageous and ſatisfactory.*

975. I

* Of this we have a remarkable and deciſive inſtance in the Bangorian controverſy; See Biſhop Hoadly's argument

975. I ſhall here conclude this tedious, and to me highly irkſome diſquiſition. It is with the utmoſt regret I oppoſe ſo high an authority as that of Mr. Locke; but, on this occaſion I cannot but think, that his judgment was warped by the juſt indignation he felt at the trifling, yet ſolemn wrangling of the ſchools in his day, and the over nice attention paid to ſyllogiſtic forms; this indignant feeling is eaſily diſcerned throughout this whole chapter. His objections to the intricacies of mood and figure, I very willingly allow; they may eaſily be avoided, as all are reducible to the firſt figure.

The objections of Dr. Campbell, in the firſt volume of his excellent Treatiſe on the Philoſophy of Rhetorick, p. 164, being for the moſt part the ſame as thoſe of Mr. Locke, need not be mentioned; they are ſufficiently refuted by his own practice. For though he tells us, p. 164, that "the method of proving

ment in his anſwer to Dr. Snape, p. 31; Snape's ſecond Letter, p. 58; and Prat's Reply thereto, p. 41; and the ſyllogiſm formed by Lord Camden, to explain the ſtatute of frauds; and an obſcure caſe in Carthew. See the caſe of Hindſon v Kerſay, 5th George 3d, 1765.

by

" by ſyllogiſm, appears, even on a ſuperficial " review, both unnatural and prolix," yet, in p. 124, he himſelf, to prove that demonſtrative evidence does not admit a contrariety of proofs, forms the following ſyllogiſm: " If " one demonſtration were ever capable of " being refuted, it would be by another de- " monſtration, this being the only evidence " adapted to the ſubject, and the only ſort by " which the former could be matched. *But* " to ſuppoſe that contraries are demonſtrable, " is to ſuppoſe that the ſame propoſition is " both true and falſe, which is an evident " contradiction, *conſequently*, if there ſhould " ever be the appearance of demonſtration on " oppoſite ſides, that on one ſide muſt be fal- " lacious and ſophiſtical." He may, indeed, call this argument an epicherema, if he chuſes, as each propoſition is ſupported by a proof, but it is evidently grounded on a ſyllogiſm, and if the proofs were diſputed, they alſo ſhould be proved by ſyllogiſms. Where, in this argument is that *petitio principii*, which he ſays, p. 174, is eſſential to a regular ſyllogiſm? If it were, it is extraordinary that the eagle-eyed ſcholaſtics never diſcovered this radical defect.

P. 181,

P. 181, he ſays, it is ill adapted to ſcientific reſearches, and for that reaſon never employed by the mathematician. Yet Leibnitz aſſerts, it is conſtantly employed by Euclid, as already mentioned, and ſo alſo in algebra. But ſuppoſe it were not, are there no other ſciences but the mathematical? Is the ſyllogiſm of Lord Camden, in the caſe of Hindſon *v* Kerſey, uninſtructive? It runs thus: "No perſon "who would be incompetent to prove a will "upon a trial, can be credible to atteſt it "upon the execution; the deviſee in this "caſe would be incompetent to prove. *Ergo*, "he is not credible to atteſt." See his Argument, p. 69.

PART IV.

OF METHOD.

976. This is the laſt and not the leaſt important part of logics, as it indicates, firſt, the general means of inveſtigating truth.

Secondly, how truths, already known, are moſt eaſily communicated.

Thirdly,

Thirdly, how to aſcertain truth by controverſy.

Fourthly, the means requiſite to obtain truth from living witneſſes.

Fifthly, the rules to be obſerved for obtaining a true interpretation of written documents.

It is ſcarce neceſſary to mention, that all prejudices derived from ambiguous or fallacious ſources, or grounded on erroneous principles, ſhould firſt be laid aſide, if not abandoned; the moſt exact and extenſive knowledge of the facts on which the truth of the ſubject of inquiry depends, ſhould be attained, precipitation avoided, and all biaſes from intereſt and partiality vigilantly excluded.

CHAPTER I.

OF THE GENERAL MEANS OF INVESTIGATING AND COMMUNICATING TRUTH.

SECTION I.

OF THE ANALYTIC METHOD.

977. This conſiſts, firſt, in ſtating the ſubject of inveſtigation in the moſt preciſe and

unambiguous manner, exeluding every thing extraneous to it, and, (if neceſſary,) defining the terms in which it is conceived.

Secondly, in obſerving, enumerating, and marking its known properties.

Thirdly, in obſerving the relation of theſe properties to each other, and to ſome known ſtandard, or general teſts with which they may be examined and compared.

Laſtly, in deducing from ſuch compariſon, ſuch facts or other truths as may thereby be diſcerned, demonſtrated or rendered probable, and cauſes from their effects.

978. As we thus proceed from the ſimpleſt and moſt known properties of an object, to the more complex and remote, and thus to the gradual developement of its nature, as far as it may be known, or the ſolution of a propoſed queſtion requires, this method is ſtyled that of *reſolution* or *analytic*.

979. It is thus we learn to *read*, beginning with the ſounds attached to the letters of the alphabet, thence proceeding to the ſyllables formed of thoſe letters, and, laſtly, to the words formed of thoſe ſyllables.

980. In the ſame manner we learn *foreign languages*.

languages. Firſt diſtinguiſhing the various parts of ſpeech, as nouns, and their ſubdiſtinctions; then the manner in which their relations are deſignated, whether by terminations or articles; thence proceeding to verbs, noting their various inflections, according to their relation to time, and to the intention of the ſpeaker; then we attend to thoſe parts of ſpeech which ſuffer no variation; and, laſtly, we learn to aſcertain the relation of theſe different parts to each other, according to the ſyntactic rules peculiar to each language.

981. So in ſtudying *logick* from preliminary obſervations on the uſe, ſignification, and general relations of words to their objects, we proceed to obſervations on propoſitions formed therefrom. Their combination with each other in the act of ratiocination, and the evidence, certainty, probability, or doubt, reſulting from the combination; we next learn to detect its various abuſes, and mark ſome falſe principles which have frequently, but erroneouſly, been admitted; to which we ſubſtitute ſome general principles of general uſe in ſpeculative reaſoning;

and, laſtly, we conclude with ſtating the obſervations contained in the preſent chapter.

982. So in analyzing natural bodies, the peculiar province of *chymical ſcience*, we begin by ſeparating, if neceſſary, every viſible foreign particle; we next proceed to examine its bulk or weight by reference to the ſtandard meaſures or weights of the country, and its ſpecific gravity by its relation to that of an equal bulk of water; then we obſerve the properties it exhibits, when expoſed to heat, whether by diſtillation, ſublimation, fuſion, or vitrification; then its relation to various teſts, whether acid, alkaline, ſpirituous, or oleaginous, noting the reſults of the action of theſe teſts, and the diſtinct parts ſeparated by them, and the claſſes of natural bodies to which they are referable. And finally, if poſſible, recompoſing the whole, by the reunion of the parts thus ſeparated.

983. Hence, it is plain, that to attain a knowledge of this ſcience, we muſt firſt learn the nature, uſe, and application of the teſts it applies, and the various ſpecific reſults to be expected from their application to the various known claſſes of natural bodies.

984. It

984. It is alſo by this method, that the ſciences of numeration, as arithmetic and algebra, muſt be acquired, gradually proceeding from the ſimpler to the more compound operations. Geometry alſo, though taught ſynthetically, yet is more eaſily and naturally acquired by the analytic method, as the celebrated Clairaut has ſhewn, in an excellent treatiſe thereon. In theſe ſciences, evidence is the proper teſt of every propoſition advanced.

985. In the ſpeculative ſciences of metaphyſics, ethics, and natural law, the ſolution of many queſtions is moſt naturally obtained, by proceeding according to this method; to illuſtrate the practice of which, I ſhall ſubjoin two examples.

Firſt in *metaphyſics*.

986. Suppoſe the queſtion to be, *whether the mind be a ſimple ſubſtance?* I firſt ſtate, the meaning I affix to the terms in which it is conceived. *Mind*, denotes the principle or ſubject of our ſenſations, ideas, judgments, and other perceptions.

Subſtance, denotes a being capable of perception.

Simple, denotes the denial of compoſition, or a thing whoſe conſtitution is an unit in the ſtricteſt ſenſe.

Secondly, in examining the properties of mind, I find by conſciouſneſs, that it is capable not only of perception, but alſo of judgment.

Thirdly, attending to the act of judging, I find that to judge, the mind muſt compare the objects which it connects or diſconnects.

Fourthly, I find, that to compare two objects the mind muſt have them both in its view at the ſame time.

Whence I argue thus:

To view two objects together, at the ſame time, they muſt both co-exiſt in one and the ſame ſingle indiviſible ſubſtance. But, in order to judge, the mind muſt have the two objects it compares, connects, or diſconnects, preſent to it at one and the ſame time, therefore, they muſt both co-exiſt in a ſingle indiviſible ſubſtance. The ſecond propoſition is proved thus: if the objects compared be not allowed to co-exiſt in a ſingle ſubſtance, then they muſt be ſuppoſed to exiſt in at leaſt two ſubſtances or parts. Now, ſuch a ſuppoſition is repugnant

nant to the nature of a compariſon, and conſequently cannot be admitted.

This ſecond propoſition is proved thus: to compare two objects, one exiſting by the ſuppoſition in the part *A*, and the other in the part *B*, they muſt be both known; but ſince the mind in this ſuppoſition is not a ſimple ſubſtance, but exiſts in the parts *A* and *B*, the portion of it exiſting in the part *A*, and to which one of the objects of compariſon is preſent, cannot know what exiſts in the part *B*, to which the other object is preſent; otherwiſe, contrary to the ſuppoſition, both objects would exiſt in one part, therefore it cannot compare them.

This ſecond propoſition is thus proved: the parts *A* and *B* are ſuppoſed really diſtinct from each other, therefore, the knowledge poſſeſſed by the part *A* is not the knowledge poſſeſſed by the part *B*, nor can the part *A* know what paſſes in the part *B*: therefore, in this ſuppoſition no compariſon could be inſtituted, nor conſequently any judgment, and yet we are conſcious of both, therefore, this ſuppoſition is inadmiſſible, and conſequently the mind is a ſimple ſubſtance. See Condillac.

Secondly, in morals.

987. It has been maintained, about the beginning of the laſt century, and ſupported by ſome plauſible reaſoning, that *private vices were public benefits.*

To examine this opinion, let the terms be firſt defined.

Vices, denote habitual exceſſes, detrimental to an individual or to the public, without being the objects of criminal law; as *drunkenneſs, prodigality, avarice, libertiniſm, &c.*

Private, denotes the vices of ſome individuals, and not of the *majority* of the ſociety, for then the aſſertion would be glaringly abſurd, as it would be tantamount to affirming, *that public vices are public benefits.*

Public, denotes a majority or plurality of perſons.

Benefits, denote advantageous upon the whole.

We next proceed to the examination of the properties of the object in queſtion, which, in this caſe, are the conſequences reſulting from vitious habits.

Firſt, it is indeed allowed, that they are hurtful to the individual engaged in them; but,

but, conſidering each vice in particular, ſuppoſe *drunkenneſs*, it may be ſaid, that ſome perſons are benefitted by it, for inſtance, the merchant who imports the wine conſumed, the ſhipwright who conſtructs the veſſel that imports it, the various trades employed in the conſtruction, the ſailors who navigate the veſſel, and the revenue derived from the importation.

Add to theſe, the gains reſulting to the phyſician and apothecary, called to remedy the diſtempers occaſioned by this vice, to the druggiſt who ſupplies the apothecary, to the merchant who imports thoſe drugs, and to the revenue ariſing from the duties laid on them.

On the other hand, the miſchievous conſequences attendant on, or reſulting from this vice, are, firſt, the bodily diſorders that originate from it; ſecondly, the broils, quarrels, outrages, and ſometimes homicide, even of his neareſt relations, committed by the unhappy victim of this vice; thirdly, the ruin it entails on his family, either by the neglect of the buſineſs he may be engaged in, or by the raſh contracts he may be ſeduced to enter into,

into, during the period of his intoxication; fourthly, the inability to pay his juſt debts, and the numberleſs embarraſſments ariſing thereby, to thoſe who have had the misfortune of having intereſt depending on his conduct.

Thirdly, we are now to examine how far, on balancing the conſequences of this vice, it may be ſaid to be advantageous or injurious to the public.

Firſt, the wine merchant, ſhipwright, public revenue, &c. are benefitted by the importation of wine, taken in moderation and ſobriety; nay, they will be more benefitted, than if it were taken with exceſs. For, let us ſuppoſe this exceſs to prevail in a large portion of ſociety, the reſult will be, that from the inattention and neglect ariſing from its indulgence, the merchant will very generally remain unpaid, diſcouraged, if not ruined; at beſt his ſale will be diminiſhed by the ſickneſs or death of his cuſtomers, and thus the preſumed advantages of this vice will gradually ceaſe: the calamities iſſuing from it to men engaged in different profeſſions, whether military, legal, eccleſiaſtical, or mercantile,

are

are too obvious to be particularly inſiſted on, and too numerous to be minutely detailed. The benefits reſulting to men of the medical profeſſion, even if real, would be a ſufficient proof of the evils it produces; the numerous diſorders incident to human nature, and which fleſh is heir to, form a ſource ſufficiently copious for the ſupport of a profeſſion founded on their exiſtence, and the number of whoſe members, muſt ever be proportioned to that of the evils they are called to remedy.

Many other vices might be mentioned, which are in no degree beneficial to the public; but the conſiderations here adduced are fully ſufficient to enable us to ſee the falſehood of the tenet here examined.

SECTION II.

OF THE SYNTHETIC METHOD.

988. Though truth is moſt eaſily diſcovered, and ſome ſciences more eaſily attained by the analytic method, yet other ſciences are more readily communicated by the ſynthetic method, and ſome problems ſatisfactorily reſolved.

989. The

989. The ſciences moſt properly communicated by this method, are thoſe that proceed from the moſt general truths, to thoſe that are ſubordinate to them, dividing them into diſtinct claſſes, and ſo deſcending to thoſe that are particular, or leaſt general. Thus the whole collection of truths is gradually unfolded to the learner, and until it is capable of being thus developed, it ſcarcely merits the denomination of a ſcience.

990. Hence the ſciences, to the acquirement of which, this method is beſt ſuited, are ſome branches of natural hiſtory, natural philoſophy, juriſprudence, ethics, politics, theology, and medicine. Euclid follows this method in his Elements of Geometry.

991. Thus in that branch of natural hiſtory which treats of *minerals*, we firſt divide them into four general claſſes, earths and ſtones, which form one claſs, ſalts, inflammables, and metallic ſubſtances. Then earths are ſubdivided into their different ſpecies, calcareous, barytic, magneſian, argillaceous, &c.; in the ſame manner the other claſſes are ſubdivided, and each kind and ſpecies defined.

992. So *juriſprudence* is divided into three general

general branches, the laws of nature, of nations, and the municipal law of each diſtinct country; the definition of law in general, and of each of theſe grand branches being premiſed.

993. So *medicine*, or the art of healing, is divided into phyſiology, pathology, hygieine, and therapeutics; each of which admits numerous ſubdiviſions. Noſology, a branch of pathology, is divided by Dr. Cullen into claſſes, orders, genera, and ſpecies.

994. In *natural philoſophy*, the general nature of bodies is firſt ſtated, then their general properties, as gravitation, elaſticity, attraction of coheſion, elective attraction, ſolidity, liquidity, caloric, laws of motion, &c.; then the peculiar properties of electricity, magnetiſm, &c.

995. A propoſition is ſaid to be proved by the *ſynthetic* method, when its truth is deduced from truths ſtill more general or better known, as axioms and definitions; this ſort of proof is therefore called *a priori*. And thus effects are deduced from their cauſes. It is thus the exiſtence and unity of the Divine nature has been moſt ingeniouſly and accurately proved by

by Dr. Hamilton, the late Biſhop of Oſſory. And thus the ſolution of many queſtions in ethics and juriſprudence has been attained.

996. The explanation I have here given of the analytic and ſynthetic methods, differs indeed from that given by Dr. Watts, but is agreeable to that aſſigned by Mr. Duncan,* Le Clerc, Condillac,† Du Marſais,‡ Port Royale,§ and the moſt approved ſcholaſtic writers. Mr. Edgeworth well obſerves, that the words ſyntheſis and analyſis, are frequently miſapplied.‖

SECTION III.

OF THE INVESTIGATION OF TRUTH BY CONTROVERSY, AND THE SUPREME JUDGE OF DISPUTED QUESTIONS.

997. Upon whatever grounds, men by their ſolitary attention form their opinions, they are ſo far biaſſed by them, that they ſee much more clearly the reaſons by which they are ſupported, than thoſe by which they are

* P. 275. † Vol. i. p. 132.
‡ Logick, 162. § Part IV. chap. iii. p. 465.
‖ On Education, 2d Edit. vol. i. p. 178.

or may be oppoſed; yet, ſince the ſolution of all queſtions that do not admit of a clear and rigorous demonſtration, muſt be deduced from the joint conſideration of the arguments that favour, and of thoſe that oppoſe any particular deciſion, it is plain that ſuch arguments ſhould be produced and propoſed by thoſe who entertain oppoſite opinions on the ſubject, for they alone can expoſe them with the force and clearneſs of which they are ſuſceptible.

998. Controverſies therefore duly conducted, are excellent means of elucidating any queſtion, and ſettling a true deciſion; hence in our courts of juſtice, much ſtreſs is not laid on rules or decrees that paſſed without debate.

999. The rules to be obſerved in conducting a controverſy in the moſt advantageous manner, are well laid down by the learned, judicious, and highly impartial Dr. Hey, late Norriſian profeſſor at Cambridge, from the firſt volume of whoſe lectures I ſhall extract them, with ſuch additional obſervations as I think requiſite.

" Firſt, the terms in which the ſubject in debate

" debate is conceived, ſhould be ſo clearly ex-
" plained, as that their preciſe ſignification
" ſhould be expreſſly agreed on by both parties.

" Secondly, all expreſſions of ſelf-ſufficiency
" ſhall be carefully avoided; he uſes ſuch ex-
" preſſions who calls his own cauſe the cauſe
" of God, and his own interpretation the
" word of God.

" Thirdly, whoever uſes perſonal reflexions
" ſhall be deemed an enemy to truth; they
" prevent even juſt reaſoning from being
" attended to by common men.

" Fourthly, let no one accuſe his adver-
" ſary of indirect motives.

" Arguments are to be anſwered, whether
" he who offers them is ſincere or not; to
" inquire into his motives is then uſeleſs; to
" aſcribe indirect ones to him, is worſe than
" uſeleſs; it is hurtful. Sometimes, however,
" the caſe is ſuch, that it ſeems as if we were
" not bound to take men in the literal ſenſe,
" when they profeſs their motives for writing.
" Theſe are ſometimes to ward off danger, or
" prevent a legal proſecution; of this ſort is
" the concluſion of Mr. Hume's Eſſay on
" Miracles.

" Fifthly,

" Fifthly, the conſequences of any doctrine " are not to be charged on thoſe who hold " thoſe doctrines, except they expreſſly avow " them; if from any propoſition, abſurd pro- " poſitions follow, it is rightly concluded, that " the original propoſition is falſe, but it can- " not be rightly concluded, that the adver- " ſaries maintain thoſe abſurd propoſitions; " that is barely a queſtion of fact.

" Sixthly, it is improper to refer any ſaying " of an adverſary to a party; this is done " when it is ſaid, *this is downright popiſh ſu-* " *perſtition, Scotch philoſophy, Iriſh blundering,* " *rank Tory principle,*" *&c.*

1000. Theſe rules have very ſeldom been obſerved in any controverſy; the neareſt approach to a perfect conformity to them, may be ſeen in the controverſial correſpondence of the late excellent Dr. Prieſtley and Dr. Price, and alſo in the amicable conference of the learned Beza and Profeſſor Jacobi at Montbeliard. But of the groſſeſt violation of all of them, innumerable inſtances may be adduced, even in writers in other reſpects of the greateſt reſpectability. See thoſe extracted from Biſhop Warburton by Dr. Hey, vol. i. p. 467.

1001. Of the Socratic mode of diſputation ſome excellent ſpecimens may be ſeen at the end of Leibnitz's Theodicea, and in Le Clerc's Logick, p. 237, &c. and Dr. Berkeley's Dialogues.

1002. Conformity with reaſon, when clearly and diſtinctly diſcerned, or, in other words, when *evident*, is undoubtedly the genuine criterion of truth; but when in complicated or obſcure ſubjects, the appearance of ſuch conformity is the reſult of an intenſe, continued, and diverſified attention, experience ſhews us, that ſomnolency, or ſome unperceived error, may vitiate our concluſions, and thus we are never certain of the rectitude of the proceſs that led to them, until we have repeated it after ſome interval, or procure it to be repeated by another; the greater the number of perſons who agree in the ſame determination, the greater our aſſurance of its truth; it is thus, that in phyſical, and often even in mathematical ſubjects, certainty is attained. In the inveſtigation of paſt facts, perplexed by contradictory or variant teſtimonies, or attended with circumſtances apparently fabulous, and alſo in moral ſubjects, from

from the variety and oppoſition of the numerous conſiderations which muſt be weighed, and carefully attended to, it is often difficult to form that deciſion which is moſt conformable to the due eſtimation of probability in the former caſe, or to the rules of morality in the latter; we muſt therefore, as in phyſics, have recourſe to the determinations of others, ſufficiently qualified to form an opinion on ſuch ſubjects, and compare them with our own, if we form any, or with each other if we form none: the leſs aſſurance we have of the juſtice of our own, the more reliance we may poſſibly repoſe on the opinions of others, but the ſtronger our confidence in our own, the leſs we ſhall feel ourſelves diſpoſed to yield to the deciſions that oppoſe them. It cannot be deemed unreaſonable, that when conſcious of the purity of our motives, and poſſeſſed of ſufficient grounds, and means to form an opinion, we ſhould prefer that which is directly founded on our own immediate diſcernment of its probability, to that formed by others, whoſe probability can only be indirectly ſeen, or rather inferred, from the ſuppoſition that poſſibly the *data* on which

their opinion is formed, have been more correctly appreciated.

1003. Nor can ſuch judgment argue a blameable preſumption; it is only preferring a ſtronger to a weaker impreſſion: 1000 eyes in the ſame poſition and circumſtances, can ſee no further than two equally well conditioned. We have many inſtances in which the opinion of one individual was found preferable to that of a multitude, equally capable of forming a correct judgment; the opinion of Lord Chancellor Finch, in oppoſition to that of the three principal judges of England, was approved by the Houſe of Lords, and held to be law ever ſince. *Third caſes in chancery, duke of Norfolk's caſe.*

1004. However, it muſt be allowed, that in caſes where the truth of a deciſion cannot be rendered indiſputably evident, the laſt, and ſupreme tribunal, to which men can reſort, is the free, unprejudiced, and deliberate judgment of men, poſſeſſed of ſufficient knowledge, and conſequently furniſhed with the due means of forming a deciſion uninfluenced by authority, and unbiaſſed by religious zeal, or any party or individual intereſt, or other

other depraved motives, in all foregoing ages; for the judgment of one age, particularly of that in which the controverſy aroſe, is rarely ſufficient. Such a deciſion, if it could be had, would undoubtedly impreſs a conviction little ſhort of a complete demonſtration; but though it can never be exactly attained, we may in every age, on many ſubjects, approximate towards it. Thus, the controverſies antiently ſubſiſting relative to idolatry and polytheiſm, have been ſo happily terminated and acquieſced in, during ages long preceding ours, as to preclude the neceſſity of a new diſcuſſion. So alſo the controverſy relative to the aſtronomical ſyſtems of Ptolemy, Tycho Brahe, and Copernicus, have long ſince been ſatisfactorily compoſed; ſo alſo the controverted ſyſtems of Deſcartes and Newton, and numberleſs others.

1005. Yet ſome controverſies relative to hiſtorical facts, which appeared to have received a ſatisfactory deciſion in the laſt or preceding century, have, ſince the middle of the laſt, been again revived, and ſo ſucceſsfully, that an oppoſite deciſion may now perhaps be deemed better grounded. Among many in-

ſtances of this ſort, I ſhall mention only one, namely, that which concerns the origin of the Septuagint tranſlation of the Old Teſtament.

The account given by Ariſteas of the manner in which the Septuagint tranſlation was obtained, was with ſome additional circumſtances, admitted without any contradiction from the Chriſtian æra, down to the year 1660, about which time its truth was denied by Dr. Hody, and afterwards by the moſt learned and ſagacious critics, both Catholic and Proteſtant, as P. Simon, Vandale, Prideaux, Du Pin, Le Clerc, and Fabricius, but ſince the year 1770, it has been ſupported by very plauſible arguments by Tyſchen, Simon de Magiſtris, Eichorn, and Maſch, by whom the objections of the preceding critics have been fairly anſwered.

CHAPTER

CHAPTER II.

OF THE MEANS REQUISITE TO OBTAIN TRUTH FROM LIVING WITNESSES.

1006. Theſe are, firſt, the excluſion of ſuch as are incompetent, and, ſecondly, examination and croſs examination under the ſanction of an oath of ſuch as are competent.

1007. Of the qualifications of witneſſes, their credibility, and the reſults deducible from their teſtimony, when agreeing with or varying from general experience in ſimilar caſes, we have already treated from No. 391, to No. 655, but ſhall be here ſomewhat more particular.

1008. A witneſs is a perſon fit to be admitted to prove the exiſtence of a fact, which he affirms to have known by the teſtimony of his ſenſes, or the non-exiſtence of a fact, which, without being perceived by him, cannot be ſuppoſed to have exiſted.

1009. He may alſo prove the general re-

pute or opinion concerning a fact, which, by its nature is incapable of being proved by the teſtimony of ſenſe, or need not be ſo proved.

1010. Thus he may prove the exiſtence of a fact he hath ſeen, or of a ſhot he hath heard, or of arſenic which he hath taſted or known by appropriate teſts, or the non-exiſtence of a ſhot, which if it had exiſted, he muſt have heard, &c.; or the identity or ſimilarity of an object or objects with which, or one of which he had been previouſly acquainted; or (in my opinion) the exiſtence of any paſt fact, of which he hath a moral certainty.

1011. Teſtimony given in a court of juſtice, is in legal language called *evidence*; hence, I ſhall here uſe it in that ſenſe.

1012. Hearſay evidence is not admitted, except, firſt, it is itſelf the object teſtified, as the hearſay or general repute of a *pedigree* or *preſcription*, or cuſtom, things which cannot otherwiſe be known; or the declaration of a deceaſed tenant, that a certain piece of land is parcel of the eſtate which he occupied; the ſtate of a family, &c.; or general facts, as a rebellion, plot, &c.; or the character of a culprit.

1013. Secondly,

1013. Secondly, of the declaration of a dying man, of the perſon that murdered him; for it is highly improbable that he would then be guilty of a falſehood; but the declaration of a dying criminal is rejected, as he is infamous.

1014. Thirdly, of the voluntary confeſſion of a criminal; for though a man is not permitted to be a witneſs for himſelf, he is the very beſt witneſs againſt himſelf.

Fourthly, in caſe of a rape, after a woman has given evidence of it; here relatives are admitted to prove her having told them of it, about the time it happened.

1015. But an offer to pay a ſum of money in order to get rid of an action, is not admitted as evidence; for, as Lord Mansfield often ſaid, it ought to be permitted to men to buy their own peace, without prejudice to them, if ſuch offer did not ſucceed.

1016. The reaſon on which this rule is grounded, is that no evidence ſhall be given on oath, of what another man ſaid who was not upon oath.*

* See M'Nally, 303.

1017. I have ſaid *a perſon fit to be admitted*, for a perſon not fit to be admitted to be a witneſs, cannot in moſt caſes be juſtly ſuppoſed to be a witneſs, or at leaſt a *credible* witneſs. Now, a perſon whoſe credibility cannot, conſiſtently with juſt general principles, be even ſuppoſed, is what is called an *incompetent* witneſs.

1018. The impropriety of admitting a perſon to be a witneſs, or in other words his incompetency, muſt ariſe from one or other of theſe four cauſes; firſt, want of underſtanding; ſecondly, an apparent diſregard to veracity; thirdly, a violent inducement to depart from it; fourthly, the inconſiſtency of ſuch teſtification, with a ſuperior obligation.

1019. A perſon, in whom theſe diſqualifications exiſt in a high degree, is ſaid to be *incompetent* to be a witneſs; but if they exiſt only in an inferior and more doubtful degree, they affect only his *credibility*; he may be admitted as a witneſs in our courts of law, but his credibility is left to the deciſion of a jury.

1020. I ſhall here barely ſketch out the moſt rational rules that have occurred, under each

each of theſe heads, leaving the minute detail of their highly diverſified application to the excellent tracts on evidence, both in civil and criminal caſes, of Lord Chief Baron Gilbert, edited by Mr. Capel Lofft; and the ſtill later of Mr. Peake; and that on criminal caſes only, by Mr. M'Nally, who is eminently diſtinguiſhed by his profound knowledge of this branch of his profeſſion.

SECTION II.

FIRST DISQUALIFICATION; *want of Underſtanding.*

1021. As all witneſſes are examined in a court of juſtice upon oath, it is neceſſary they ſhould be ſenſible at the period of their examination of the obligation it lays them under, and of the penalties incurred by its infraction.

1022. Conſequently, it is neceſſary, firſt, that they ſhould be of an age ſufficient for the development of their intelligence. This age never exceeds fourteen years, for they then ceaſe to be children, but a ſufficient degree

degree of intelligence often takes place at a much inferior age; and whether it does ſo, is very properly left to the diſcretion of the judges, to whom, in all caſes, belongs the determination of competency.

1023. Secondly, it is neceſſary that the underſtanding ſhould not be diſordered either by ideocy, lunacy, or drunkenneſs, either at the period of atteſtation, or of examination.

1024. Thirdly, it is neceſſary that the witneſs ſhould be able to explain himſelf, at leaſt by a ſworn interpreter, at the period of his examination.

1025. Hence, even dumb perſons who can explain themſelves only by geſtures, are allowed to be competent, if ſenſible of the obligation of an oath.

1026. Under this head, we may likewiſe arrange men, (if any ſuch be found,) who diſbelieve the exiſtence or providence of the Supreme Being, for they cannot be bound to veracity by the obligation of an oath.

SECTION III.

SECOND, DISQUALIFICATION, *apparent Diſregard to Veracity.*

1027. As witneſſes are examined ſolely for the purpoſe of elucidating the truth of facts by their teſtimony, and as this can never be ſuppoſed attainable with certainty, from the teſtimony of thoſe who have given ſignal proofs of their diſregard to it, it is evident, that ſuch perſons can never be accounted competent witneſſes. Hence, perſons convicted of perjury, and judgment had thereon, or of forgery, or of coining, or attainted for a falſe verdict, are incompetent. Other incompetences have been created by ſtatutes, but theſe not being grounded on natural reaſon, are here omitted.

SECTION IV.

THIRD DISQUALIFICATION, *a violent Inducement to diſregard Veracity.*

1028. The general inducements to depart from truth, in bearing teſtimony, are, firſt, a certain

certain loſs, danger or detriment, enſuing from its truth, either to the life, liberty, reputation, or property of the atteſter. But a mere poſſibility of ſuch loſs or detriment, cannot be looked upon as a preponderating bias. Nor is a conſequent loſs to one's neareſt relations or party conſidered as productive of ſuch a bias.

1029. Secondly, the acquiſition of an immediate advantage to one's ſelf, in conſequence of the teſtimony, but the gain of one's neareſt relations is not thought ſufficient to exclude his teſtimony.

1030. Hence the general rule is, that no man ſhall be admitted to bear witneſs in his own cauſe.*

1031. Thus

* The juſtice of this rule appears to me very doubtful. The numerous exceptions from it, both at common law and by ſtatutes, and the diſcordant opinions of the ableſt judges, and their frequent embarraſſments concerning its admiſſibility in many caſes, evidently prove it to be ſo. It ſhould ſeem, that ſuch teſtimony ſhould be admitted in all caſes, and that its *credibility* only is indefinitely weakened, and of this a jury is the proper judge. Moreover, our courts daily admit the teſtimony of the neareſt relations, and of the moſt violent bigots to party, though in both caſes

1031. Thus a man is not admitted to prove that his name to a note or bond has been forged;* yet Holt, one of the ableſt judges that ever ſat on a bench, ſays a man may be a witneſs, to ſet aſide his own bond obtained by dureſs,† and that a man ſhall be a witneſs for himſelf, where the nature of the thing allows him no other evidence.

1032. But if two men are ſeverally indicted for perjury, with reſpect to the ſame fact, one is permitted to be a witneſs for the other, as the acquittal of the latter will not ſerve to acquit the witneſs.

1033. Yet at common law, a man was permitted in ſome caſes to ſwear, that he owed nothing to a plaintiff, when ſix, eight, or twelve others ſwore they believed his oath to be true; this was called *wager of law*.

caſes the temptations to deflect from the exact line of truth, may be as violent as, at leaſt, that of a moderate direct intereſt. And in courts of equity, and in affidavits, are not men admitted to bear witneſs for themſelves. Chriſt, it is true ſays, if I give teſtimony of myſelf, my teſtimony is not *true*, John v. 31; yet *true*, ſignifies only *worthy of belief*, that is, abſolutely perſuaſive. See Grotius on this verſe.

* Peake on evidence, 147.

† Queen *v* Sewel, 7 Mod. 119, 120.

1034. So

1034. So alſo, when in conſequence of his teſtimony, a perſon ſhould gain ſome direct or immediate advantage to himſelf, he is not in general judged competent to be a witneſs, but if the advantage is to accrue to his neareſt relatives, he is admiſſible, but his credibility is left to a jury.

1035. Thus, if a man is promiſed a leaſe if the land be recovered; this excludes his teſtimony.

1036. But if a creditor deviſes a debt to his debtor, and the executor delivers the bond to the debtor, who cancels it, and afterwards the validity of the will queſtioned, on a doubt whether the teſtator was *compos* or not, the debtor may be a good witneſs of his ſanity, becauſe the obligation being cancelled, he is no longer intereſted, and neither his competency, nor even his credit is affected, if not ſuſpected of having fraudulently promoted the fabrication of the will.

1037. The men of one county, city, or barony, may be admitted as witneſſes of its rights, privileges, or immunities, as they have no private intereſt therein. But not of its boundaries in a ſuit carried on with another county,

county, &c. becauſe they are then concerned in point of intereſt.

1038. Alſo the intereſt that excludes a man from teſtimony, muſt be *certain*; hence, an heir at law may be a witneſs, as his intereſt is precarious. But not he that hath a veſted remainder.

1039. Moreover, the intereſt that excludes a man from teſtimony, muſt exiſt at the time the fact to be proved happened, or be thrown upon him afterwards by operation of law, or by the act of the perſon who requires his teſtimony. For if, after the event, the witneſs becomes intereſted by his own act, without the interference or conſent of the party by whom he is called, ſuch ſubſequent intereſt will not render him incompetent; for, otherwiſe it would be in the power of the witneſs, and often in that of the oppoſite party, to deprive the perſon wanting his teſtimony, of the benefit of it. Thus though a proſecutor lays a wager, that he will convict the defendant, yet he ſhall be a competent witneſs; for, otherwiſe, by a juggle betwixt him and the defendant, the defendant might be acquitted.

1040. The intereſt muſt alſo continue to

the time of the trial, and therefore this objection may be removed by a *releaſe* before the trial.

If a ſervant is beaten by a ſtranger, and the maſter brings an action of treſpaſs againſt the ſtranger, the ſervant is admitted to be a witneſs.

1041. It alſo often happens, that to refuſe a witneſs, becauſe he is intereſted, would occaſion a greater evil than his admiſſion; for, the evil ariſing from his admiſſion is *precarious*, as his credit is ſtill open to the conſideration of a jury; but his excluſion would often operate a *certain* evil, as better proof cannot, from the circumſtances of ſuch a caſe, be expected.

1042. So, a perſon robbed, is allowed to witneſs that fact, in order to charge the hundred under the ſtatute of Winton, (even at common law;) for otherwiſe the benefit of the ſtatute might be excluded, as no other perſon might be preſent.

1043. So, a perſon who bribed another at an election, is a competent witneſs to prove the fact, though he thereby frees himſelf from the penalty.

1044. In

1044. In public proſecutions for injuries, the party injured, may in moſt caſes be a witneſs, for no private advantage accrues to him, either directly or conſequentially.

SECTION V.

FOURTH DISQUALIFICATION, *the Oppoſition of a ſuperior Obligation.*

1045. It is the duty of all the members of a ſociety, to promote the execution of juſtice by their teſtification, when neceſſary, for its attainment; yet there are duties of a ſtill higher nature, whoſe exiſtence precedes even that of all conventional ſocieties, and cannot be ſuperſeded by them. Such is that reſulting from the conjugal union, (and, in my opinion, alſo that ariſing from parental relation,) which may oppoſe that of teſtification or or againſt the party that ſtands in that relation to the other, where a perſonal injury does not intervene.

1046. An artificial connexion is alſo formed in all civilized ſocieties, between perſons pro-

ſeſſionally employed in conducting ſuits, and thoſe who for this purpoſe confide in them, as, barriſters, attornies, and ſolicitors. To preſerve this confidence inviolate, ſuch perſons are excuſed from giving teſtimony as to facts thus diſcloſed to them.

SECTION VI.

OF TESTIFIABLE OBJECTS.

1047. Teſtifiable objects are thoſe which are perceived by the organs of ſenſe, or which if they exiſted, muſt have been ſo perceived, or otherwiſe certainly known.*

Or, ſecondly, the general repute of objects which are incapable of being perceived by ſenſe.

Or, thirdly, the identity of an object viewed at different periods of time.

Or, fourthly, the identity of cauſation.

Of the ſecond head I have already treated, No. 1012, 1016. Hence, I ſhall here conſider only the two laſt.

* This laſt, Gilbert calls *deductive* certainty. Lofft's edit. p. 6.

Of

Of the Identity of an object.

1048 That the man I have ſeen this day is the ſame man I have ſeen yeſterday, or laſt year, or two more years ago, I infer with that degree of confidence which is called certainty, from the undeſcribable characteriſtic ſimilitude, even though in ſome reſpects degraded or imperfect, betwixt his features, ſize, voice, &c. actually obſerved, and thoſe which I ſufficiently recollect to have formerly obſerved. Such a ſimilitude being very rarely found, between two individuals of the human ſpecies, the knowledge founded on ſuch recollection, is called an *acquaintance*. That it is ſometimes liable to miſtakes, ſee the caſe of Martin Guerre, in *Cauſes celebres*, vol. i.

Of the Identity of Cauſation.

1049. The belief of this is founded on the ſame principle as in the laſt caſe, but ſomewhat weakened; for, it being well known, that certain effects moſt commonly bear characteriſtic marks of the individual cauſe from whence they proceed, it comes to paſs that a ſtriking ſimilitude betwixt an object preſented

to a witneſs, and other objects already well known to him, to proceed from a given cauſe, muſt impreſs on his mind a firm perſuaſion or belief, that the object now preſented to him, proceeds from the ſame cauſe; or, in other words, the identity of the cauſe of certain effects, may with confidence be collected from a view of the characteriſtic marks antecedently known to be peculiar to effects proceeding from that cauſe.

1050. Yet, as it is alſo known, that certain effects have frequently been ſo well counterfeited, as to be difficultly diſtinguiſhable from thoſe that are the genuine effects of a given cauſe, the perſuaſion of their real origination from that cauſe, is not altogether as ſtrong as that of the identity of an individual, ſeen at different periods of time.

1051. Of the objects whoſe ſimilitude and peculiarity of manner is capable of producing this perſuaſion, I know but two, namely, firſt, that of written characters, (more particularly if the writing be of conſiderable length,) with other writings recollected by the beholder, and known to have been indited by a given perſon, either by having ſeen him write, or, from

from conſequences neceſſarily connected with the ſuppoſition that they were penned by him, and by no other.

1052. And, ſecondly, that of *ſtyle*, whether in proſe or verſe, painting, engraving, muſic, or architecture, in diſtinguiſhing which connoiſſeurs are rarely deceived. It is by ſuch general ſimilarity betwixt writings, &c. of the ſame age or author, that they are diſtinguiſhed from thoſe of another age or author; of this ſpecies of criticiſm, Montfaulcon and Malone have given remarkable ſpecimens.

1053. With reſpect to the aſcription of a writing to a particular perſon, two queſtions have ariſen in our law; the firſt relates to the ſureſt, and conſequently the propereſt method of tracing it to him.

And, ſecondly, whether, when referred and ſatisfactorily brought home to him, it may be alleged as a proof or as a preſumption?

1054. And, firſt, with reſpect to the inveſtigation, two methods have been propoſed; the one, grounded on a ſimilitude, diſcovered by a compariſon, inſtituted by perſons not previouſly acquainted with his hand, betwixt the writing in queſtion, and other writings

certainly known to have been penned by a certain perſon. This method is now deſervedly rejected; for, firſt, a belief grounded on the reſult of ſuch compariſon, is circuitous, for the writing it is compared with muſt firſt be proved by other witneſſes; and, ſecondly, it is much more frail than that founded on a previous knowledge of his hand,—the perſuaſion that originates thereſrom, ariſes from a more ſettled and firmer aſſociation; now, in every ſpecies of evidence, the ſtrongeſt of that ſpecies is, very properly required.

1055. The ſecond, now generally adopted, is the aſſurance of a ſworn witneſs, that he is acquainted with the hand, and thence believes the writing produced, to be that of a particular perſon; but he muſt explain the reaſons on which he grounds his belief; for inſtance, becauſe he has frequently ſeen him write, or avow his writing, either expreſſly or virtually; or has correſponded with him; for it is plain he would not direct an anſwer to a perſon, but on the belief that the letter he received was from that perſon; and this belief may be confirmed by mutual replies, and the frequency of the correſpondence: this evidence

is

is immediate, being founded on inſtantaneous recollection.

It is true that the writing of any man may be forged; but forgeries are rare, and conſequently improbable; they ſhould therefore be proved, or at leaſt be ſtrongly inferrable from circumſtances.

1056. In critical inquiries the ſimilitude or diſcrepance diſcovered by a compariſon of hands, and other peculiarities, is juſtly admitted, being the beſt evidence that can be had in judging of ancient manuſcripts.

1057. In anſwer to the ſecond queſtion, I am diſpoſed to think, that the mere *belief* of a witneſs, however well grounded, can in no caſe be looked on as a *full proof*, independently of other circumſtances connected with it; but, with them, it may be a corroborating proof; for *belief* can never be equal to *knowledge*, which is grounded on the immediate teſtimony of ſenſe; as when a perſon has ſeen another penning the writing in queſtion: this then being the beſt evidence, an inferior evidence can only be looked upon as a *violent preſumption*, which, in *civil* caſes, being uncontradicted, is equivalent to a full proof;

but

but not in *criminal* caſes, where a deciſion can never be re-examined or revoked, except privacy be a circumſtance almoſt neceſſarily connected with the crime; or, that other circumſtances naturally concomitant with, or conſequent to it, or leading to it, alſo concur, and clearly enforce the belief of it; unleſs theſe alſo be ſatisfactorily explained.

SECTION VII.

OF CROSS EXAMINATION.

1058. To croſs examine a witneſs, is to ſcrutinize his credibility, or even his competency, after his teſtimony has been given, if, by ſome miſtake, his competency had been at firſt overlooked, or its defect not known.

1059. Now, his credibility may be either impaired or deſtroyed; firſt, by his general repute and character among his neighbours; or, ſecondly, by the inconſiſtency of the facts alleged by him, or of the different branches of his teſtimony; or, thirdly, by the inconſiſtency of his teſtimony with that of other witneſſes,

witneſſes, either more, or at leaſt equally credible, or more numerous and equally credible; or, fourthly, by an intemperate zeal for his ſect or party, or even his laudable partiality for his near relatives; or, fifthly, by apparent averſion, hatred, or malevolence, to the party againſt whom he is produced; or, ſixthly, by the connexion of his teſtimony with his intereſt, or that of his relatives, or party; or, ſeventhly, his acceptance of a reward for his teſtimony; or, eighthly, his previous declarations of his diſbelief of a God, or future rewards or puniſhments.

1060. In general, we may remark, that a witneſs ſhould not be croſs examined to facts, which do not relate to that or thoſe of which he has given teſtimony.

SECTION VIII.

OF THE DISCREDIT* ARISING FROM DISREPUTE.

1061. The evidence to deſtroy the credit of a witneſs, muſt be that of perſons who

* Or rather *diſcredibility*, a word wanting in our language, as *incredibility* relates to things, not perſons.

have

have known his *general character*, and take upon themſelves to ſwear, from ſuch character, that they would not believe him upon his oath: but they are not at liberty to charge him with any particular tranſaction, as he may not come prepared to explain it.

1062. Yet it is ſaid, that the party intereſted to ſupport his character, may call upon thoſe who diſparage it, to ſtate the grounds on which their opinion is founded, which ſeems to me inconſiſtent; for *reputation* is the ground on which they refuſe him credit, and not any particular which he is not prepared to explain or juſtify.

1063. But declarations made by him on the ſame ſubject, contrary to what he ſwears on the trial, may be given in evidence to impeach his credit.

1064. If a witneſs is called, and another is produced on the oppoſite ſide, to impeach his credit, the credit of the firſt is leſſened, in proportion to the credibility of the ſecond.

1065. If a witneſs is produced, and another is offered to deſtroy his credit, a third witneſs may be called to ſupport it: the joint credibi-

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lity of the firſt and third witneſs is inverſely, as the credibility of the ſecond.

1066. The party who produces a witneſs, is not allowed to impeach his credit by *general* evidence; for, if that were permitted, he might deſtroy his credit, if his teſtimony were unfavourable, and make him out a good witneſs if his teſtimony were favourable, having the means of deſtroying his credit in his breaſt.

1067. But if a witneſs ſhould allege a fact, unfavourable to the party that produces him, that party may call others to contradict him, as to that particular fact; for ſuch facts are evidence in the cauſe, and the other witneſſes are not called, in order directly to diſcredit the witneſs, but the impeachment of his credit, as to ſuch facts is merely incidental and conſequential.

SECTION IX.

OF QUESTIONS WHICH A WITNESS IS REQUIRED TO ANSWER UPON A CROSS EXAMINATION.

1068. It is uſeleſs to aſk a witneſs whether he believes the exiſtence of God; for if he does not, he may ſwear he does.

1069. In general, he is obliged to anſwer, according to his knowledge or memory, any queſtion which relates to his teſtimony antecedently given, or the points in iſſue, or to his own intereſt therein, or to the motives by which he is actuated; for, his anſwers to theſe queſtions tend to elucidate the truth of the facts on which the jury are to decide.

1070. But no queſtion ſhould be put to him, which he is not obliged to anſwer; conſequently he ſhould not be aſked any, to anſwer which with truth, would be to accuſe himſelf of a crime, or expoſe him to ſome puniſhment; nor, in my opinion, ſhould he anſwer ſuch queſtions, as, if truly anſwered, might involve him in diſgrace, and leſſen his eſtimation.

eſtimation. For to oblige him to anſwer ſuch queſtions, would in fact be putting him to the torture, betwixt the fear of God on the one hand, and the ſtings of ſhame on the other. Self-defence is a law of nature, and no law can bind a man to be his own accuſer. The arguments for a contrary practice are ſuch, as may be alleged for torture; the only difference is, that corporeal torture may make a man avow a crime which he has not committed, and mental torture may make him deny that which he hath committed.

1071. Nor, in my opinion, ſhould a man be compelled to ſwear to his belief of any fact not grounded on the direct conſequences of his knowledge, or acquaintance with the object in queſtion; but, if he voluntarily avows his belief, he ought to aſſign, on what grounds he forms it; for theſe may be very ſlight; and, even if ſolid, they rather ſerve to corroborate evidence already given, than to form a diſtinct independent proof. For, it is upon the *knowledge* of the witneſs, his aſſurance of a familiar acquaintance with the object, and not upon his belief, that a jury are to form their verdict. The ſenſes of the witneſs

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are deſigned to ſupply the abſence of thoſe of the jury; but his belief can only ſuggeſt belief.

1072. But a contrary practice hath prevailed. And, indeed, if a man ſwears, he *believes* that to be true, which he *knows* to be falſe, he may be indicted for perjury, and juſtly.

1073. It is ſaid, that *communis error facit jus*. But it is alſo ſaid, *judicandum legibus et non exemplis*. And the law of reaſon is part of the law of the land. Judge Foſter ſaid, he hoped he ſhould never hear the former rule inſiſted upon, to ſet up a miſconception of the law in deſtruction of the law.

SECTION X.

TORTURE.

Torture is a pain inflicted on a ſuppoſed criminal, to make him avow his guilt, or to extort from him ſome other truth with which he is ſuppoſed acquainted.

In countries in which it is as yet practiſed, it is reſorted to in three caſes; firſt, on a mere ſuſpicion

ſuſpicion of guilt; ſecondly, on an imperfect evidence of guilt, to complete that evidence; and, thirdly, to oblige a perſon already adjudged criminal to diſcover his accomplices.

But in all theſe caſes it is inhuman, unjuſt, and fallacious, and in the laſt caſe moſt flagrantly injurious to the community at large.

It is *inhuman*, becauſe men, even when not connected with each other by the ties of civil ſociety, are ſtill connected by the ties of mutual ſympathy; to infringe theſe by inflicting pain without a ſufficient cauſe, is therefore to act in oppoſition to the laws of our common nature.

It is *unjuſt*, becauſe even in a ſtate of nature men are not ignorant of that moral law, that forbids them to do to others, without a ſufficient cauſe, that which they inſtinctively feel, and are perſuaded ſhould not, without a ſufficient cauſe, be done to themſelves. Now, no man would allow it to be juſt, that he himſelf ſhould be ſubjected to pain, without a ſufficient proof of his guilt, or at leaſt, without a probability of procuring him, with his own expreſs or implied conſent, an incomparably greater good; as when pain is inflicted

medicinally, or chirurgically, by cauteries, or amputation of a limb, &c. The injuſtice is ſtill greater in a ſtate of civil ſociety. Becauſe as men, by the ſocial compact, whether expreſs or implied, are obliged to protect and ſupport the ſovereign authority of the ſtate, the ſovereign is reciprocally obliged to exempt them from vexation in every caſe, in which it is poſſible for him ſo to do, unleſs there be a ſufficient cauſe to expoſe them thereto.

Hence, in every caſe, the ſufficiency of the cauſe is the only reaſon that can be alleged in excuſe of the infliction of pain where the guilt of the perſon on whom it is inflicted, is uncertain. But the expectation of obtaining truth by a mode of proceeding, in which the pain is certain, and the attainment of truth not merely uncertain, but even improbable, cannot be deemed a ſufficient cauſe for having recourſe to it. Now, ſuch is the pretended proof or indication obtained by torture, as appears by the teſtimony of the moſt experienced judges in the unhappy countries, where pretended laws have inveſted it with the abuſed name of juſtice. Ulpian de Queſtionibus,

tionibus, leg. 1, ſays, " Res eſt fragilis et peri-
" culoſa, et quæ veritatem fallit, nam *plerique*
" patientia, ſive duritia tormentorum, ita et
" tormenta contemnunt, ut exprimi eis veritas
" nullo modo poſſit; alii tanta ſunt impa-
" tientia ut quidvis mentiri quam pati tor-
" menta mallent." And the benevolent Lewis XVI, in his ordinance of the year 1780, whereby he aboliſhed what was called the *preparatory* torture, recites, that having conſulted the beſt informed magiſtrates, they related to him, that at a meeting of the moſt experienced judges in the year 1670, they agreed that torture was uſeleſs, and that truth had rarely been extorted by its means. The torture applied to guilty criminals, called the previous torture, to diſcover accomplices, was by far the moſt dangerous to the community, as theſe criminals, to obtain a reſpite from their torments, and to be revenged of their torturers, frequently accuſed their neareſt relatives, or other perſons entirely innocent, who yet were arreſted and impriſoned, and ſometimes even tortured in conſequence of ſuch accuſation.

CHAPTER III.

OF INTERPRETATION.

1074. To interpret a written document, is to diſcover and make known its true meaning; a taſk, which frequently requires much ſagacity and attention, not only when tracts in a foreign language are to be tranſlated into our own, or an explanation of ancient writings even in our own, is attempted, but more eſpecially, when important documents of modern times, and in our own language, on which the regulation or intercourſe of ſociety depend, require a clear expoſition, ſuch as ſtatutes, deeds, deviſes, agreements, &c. Leaving however, to critics and annotators, the detail of the principles and numerous circumſtances neceſſary to be attended to, in developing the true meaning of ancient writings, and particularly of the ſacred; and to lawyers, an account of the grounds on which they found the interpretation of legal documents and inſtruments; I ſhall barely men-

tion

tion the principal maxims and rules, in conformity to which, a juſt interpretation muſt be eſtabliſhed in every caſe in which they can be applied; availing myſelf, in particular, of thoſe which have been laid down and approved of by our courts of juſtice during a ſeries of ages.

1075. In forming an interpretation, our attention muſt not be confined to words, but muſt likewiſe be extended to entire ſentences, clauſes, and phraſes;* and the reſulting ſenſe of all the parts when compared with each other.

1076. The principal maxims to be attended to, in explaining all writings, are, firſt, that they ſhould be ſo interpreted, as to exhibit, if poſſible, a conſiſtent ſenſe; that is, ſo that one part ſhould not contradict another, nor be unintelligible in itſelf, nor, upon the whole, preſent a ſenſe inconſiſtent with the rules of logic, the nature and circumſtances of the

* A *ſentence* is an aſſemblage of words ſo arranged, as to preſent a complete ſenſe.

A *clauſe* is a diſtinct ſubdiviſion of a paragraph, and may conſiſt of one or more ſentences.

A *phraſe* is an incomplete part of a ſentence.

ſubject and facts known to the author, or opinions held by him, or to evident metaphyſical or moral truths.

1077. The ſecond is, that they ſhould be expounded according to the intent of the author, either expreſſly elſewhere manifeſted, or if not, at leaſt naturally ſuggeſted, or neceſſarily inferable from external circumſtances. See Grot. in Matthew, chap. i. v. 16.

In conformity to the firſt maxim, the following rules have been laid down.

1078. Firſt, where the rules of grammar are not exactly obſerved, but the ſenſe is intelligible, as in the *lingua Franca*, the document is not to be rejected for *mala gramatica non vitiat chartam.**

1079. Secondly, where a phraſe or ſentence is grammatically juſt, but the ſenſe abſurd or unintelligible, we cannot reject ſome words to make ſenſe of the remaining, but muſt take them as they are; for there is nothing ſo abſurd or nonſenſical, but by rejecting or omitting may be made ſenſe.† But, nothing is

* Wingate's Maxims, 18.

† 1 Salk, 324.

more

more frequent in all languages, than to *ſupply* ſome words when the ſenſe evidently requires it.

1080. Third, when a phraſe is nonſenſical, by its repugnancy to ſomething that precedes it, the preceding matter being rational, ſhall not be rendered void by the repugnancy that follows it.*

1081. Fourth, relative words ſhould be referred to the next antecedent, where the matter itſelf does not hinder,† as it frequently does.

1082. Fifth, the ſureſt method of explaining any writing, conſiſts in taking the collective ſenſe of the whole; conſtruing one part by another part, the doubtful and obſcure by the plain and clear.‡

1083. Sixth, and in general, the rules of logic relative to *univerſal*, and indefinite propoſitions, and their *oppoſition*, *equivalency*, *complexity*, &c. are to be obſerved. Some of them, indeed, are expreſſly laid down by our legal writers, as that *indefinite propoſitions are*

* 1 Salk, 324. † Wingate, 15. See Hardr. 77.
‡ C. L. 387, 2 Inſt. 31 Plowd. 365, 11 Mod. 61.

equivalent to univerſal in conjunctivis oportet utramque, in disjunctivis utramvis eſſe veram.*†

Quod convenit generi convenit ſpeciei ſed non vice verſa.

1084. Hence, firſt, the reference of words is often inverted, in order to adapt them to the ſenſe of the parties, when, from other circumſtances in the document itſelf, the intent can be diſcovered.‡

1085. Hence, ſecondly, the rules even of grammar and logick, are overlooked when the intention of the parties is evident, and oppoſes compliance with them. Thus, though it is a rule that *quoties in verbis nulla ambiguitas, ibi nulla expoſitio contra verba expreſſa fienda eſt*;§ yet, where the intent is manifeſt, it is held, that words ſhall be underſtood according to the intent of the parties,‖ and it is the office of judges to expound words according to the intent of the common people, and not according to their definition,¶ where their tranſactions among each other

* Plowd. 23; 2 Roll, 57; 2 Bulſtr. 178.
† Wingate, 13. ‡ C. L. 170. Plowd. 134.
§ C. L. 147, Wingate, 24. ‖ 2 Lord Raym. 805.
¶ 6 Rep. 64ᵇ.

are

are concerned,* and the intention is evident.

1086. Hence, thirdly, *mala gramatica non vitiat chartam,* as already obſerved.

1087. Hence, fourthly, *conjunctives* may in ſome caſes be taken as *disjunctives.* Grot. in Matthew, chap. v. v. 19, p. 43, as *and* for *or,*† and *disjunctives* for *conjunctives,* as *or* for *and.*‡

1088. Hence, fifthly, in ſome languages the *paſt tenſe* is conſtrued to denote, in particular caſes, the preſent or future tenſe, Glaſs. 417, according to the exigency of the caſe.

1089. From all which we may conclude, that to form a rational interpretation, regard ſhould be had to both theſe rules. If the expreſſions be dubious, the ſenſe muſt be derived from the intent, and if the intent be dubious, it muſt be derived from the expreſs words. If both be dubious, no rational interpretation, can be formed; but if both be

* 6 Rep. 66.

† Plowd. 289, 6 Vin. 432, 2 Vin. 263, in note. Brownl. 72, 1 Veſey, 15.

‡ C. L. 99b, 6 Vin. 432.

clear,

clear, but adverſe to each other, the intent ſhall prevail.

1090. In ancient writing, where the ſenſe is not marked by punctuation, the above maxims muſt be diligently attended to. Michaelis remarks, that the moſt ancient manuſcripts of the new Teſtament have no points, and that in the modern manuſcripts that have them, they were not copied from ancient documents, but were added by the tranſcribers of their own authority. Vol. ii. Part I. chap. xxiii. ſec. 2. It is doubtful whether the ſpiritus *aſper* or *lenis* were uſed by the apoſtles. Ibid. ſec. 7. Nor are accents found in the copies antecedent to the eighth century. Ibid. ſec. 8. The diviſion of chapters into verſes was made by Robert Stephens in 1551. Ibid. ſec. 11.

1091. But to be more particular, we muſt obſerve, that words are ſuſceptible of different ſignifications; for they may be underſtood either *Literally*, or *Figuratively*, or *Equitably*, and in all caſes, the proper ſenſe of a word or phraſe, whether literal, figurative, or equitable, is that which the context and general intent of the writer manifeſtly demand. Thus the

word

word *man* denotes the human ſpecies, a male of that ſpecies, a full grown male, a piece of wood on a cheſs board; yet we never miſtake the meaning, being directed thereto, by what gave occaſion for its being employed.

SECTION II.

OF THE LITERAL SENSE.

1092. The literal ſenſe of a word is that which it naturally preſents in common acceptation, when ſingly conſidered, it being the primitive and original ſenſe; or it is that afforded by its definition; but proper names and many others are unſuſceptible of definition; the literal ſenſe may be clear, or ambiguous, or obſcure.

1093. Where the literal ſenſe of words is clear, and conſiſtent with the context, that is the general ſeries of the diſcourſe that precedes and follows, and alſo with the general intent and meaning of the writer, elſewhere expreſſed, it muſt be deemed to be that of the writer. And hence the maxim of lawyers:

Quoties

*Quoties in verbis nulla ambiguitas ibi nulla expoſitio contra verba expreſſa facienda eſt.**

1094. But where the literal ſenſe is *inconſiſtent* with the nature of things, or even highly improbable, yet agreeable to appearances, received opinions, and modes of expreſſion in general uſe, it is not neceſſary that it ſhould be deemed the *real ſenſe* of the writer, unleſs it evidently appears to have been ſo underſtood by him; and conſequently theſe *modes* of expreſſion may be taken in a ſenſe not ſtrictly literal, but in a ſenſe *equivalent* to the literal. Thus Aſtronomers and Philoſophers all over Europe, though firmly perſuaded of the immobility of the ſun, uſe the ſame language as thoſe who believe it to turn round the earth, and talk of *ſun-riſe* and *ſun-ſet*, &c. as others do, the appearances being exactly the ſame, whatever ſyſtem is held concerning their cauſe. So we call the firſt day of the week *Sunday*, that is the Sun's day, and the ſecond *Monday*, or Moon's day, &c.; though no one at preſent believes days to be dedicated to, or under the influence of planets or heathen gods.

* C. L. 147, Wingate 15.

So

So Philoſophers, in conformity to common language, aſcribe heat to fire, and colours and taſtes to the objects that excite or are conjoined with thoſe ſenſations, though they well know that ſenſations exiſt only in the mind. So no phyſician at preſent, attributes a certain nervous diſorder to St. Vitus, though in conformity to an anciently received opinion, they ſtill call it *St. Vitus's dance.* In all theſe caſes though the ſtrict literal ſignification is rejected, a ſenſe equivalent to its real import is retained.*

1095. If the literal ſenſe of words or phraſes is inconſiſtent with the nature of things,† the deſign of the writer, received opinions, or common language, it cannot be taken as the real ſenſe of the words, though it perhaps may be uſed *figuratively*, as will preſently be ſeen; unleſs the writer be ſuppoſed to miſtake, either through ignorance or miſrepreſentation. But if it be inconſiſtent with the thread of the diſcourſe, and the

* See Edgw. on Education, 2d edit. vol. i. 298, 299.

† By the nature of things, I mean, known truths, whether philoſophical, hiſtorical, geographical, or chronological.

words

words cannot be underſtood, even figuratively, there ſuch words are evidently inſerted by a miſtake, whether of the author, or his copyiſt, or of the printer, or an interpolation.

1096. There are many words, in all languages, whoſe literal ſenſe is ambiguous, either becauſe they are capable of a double ſenſe, or of a double reference, each inconſiſtent with the other. In the Greek and Latin languages, many verbs may be taken either actively or paſſively. The ſame prepoſitions are made to expreſs very different relations; and in all countries, different individuals are often denoted by the ſame name.

To confine myſelf to a few inſtances in our language; *overſee* ſignifies either to *ſuperintend* or to *neglect*; the firſt ſignification it has in the *active* voice, the ſecond in the *paſſive*. *Overlook* ſignifies alſo to *reviſe* or to *neglect*; many other examples might be adduced.

The particle *of* ſometimes denotes the relation betwixt two objects, but leaves it doubtful which is the *ſubject*, and which the *term* of the relation, when each is capable of being either the one or the other. Thus, the *love of God* denotes indifferently, either the

love

love which we bear to God, or that which God bears to us. So the particle *for*, among many other ſignifications, may denote the cauſe or motive, or diſregard to a cauſe or motive, as when it ſignifies *notwithſtanding*. See Johnſon's Dictionary, and Horne Tooke. And the ſame variety of ſignifications may be found in moſt prepoſitions. So where, in the Guardian, No. 80, it is ſaid, " your character " aſſures me that the clergy have not the " *leaſt right to your protection*;" the words *not the leaſt right*, abſtractedly conſidered, may ſignify, either that they have *no right whatſoever*, not even the ſmalleſt, or, that their right is *not the ſmalleſt* among the different rights that claim protection. Thus in conſtruction, the antecedent to the relative *who*, or *that*, &c., is often ambiguous. So " Solomon the ſon " of David, *who* built the temple of Jeruſa- " lem, was the richeſt monarch that ever " reigned over the people of God." And " Solomon the ſon of David, *who* was perſe- " cuted by Saul, was the richeſt monarch, &c." In theſe two ſentences the word *who* is ſimilarly ſituated, yet in the former, it relates to the perſon firſt mentioned, in the latter, to

the

the ſecond; but this relation to the one or to the other, it would be impoſſible for any reader to diſcover, as Dr. Campbell well remarks, who had not ſome previous knowledge of the hiſtory of thoſe kings. See his philoſophy of Rhetoric, vol. ii. p. 39; and Sir Sidney Smith's Anſwer to Pichegru; 3 Edgw. on Education, p. 249.

1097. From all which it follows, that a juſt interpretation cannot be founded on the mere letter, but on the letter taken in connexion with the intent, purport, and deſign of the writer, explicitly and unambiguouſly laid down in other parts of the document, or otherwiſe clearly proved, and conſiſtently in many caſes with extrinſic circumſtances.

1098. To inſpect this important ſubject more minutely, we muſt take into conſideration the different concomitant circumſtances in which the literal ſenſe may be ſuppoſed ambiguous.

1099. Firſt, it may be plainly ambiguous, and each meaning equally probable. In this caſe, our law decides, that it ſhall refer or be applied to the moſt conſiderable and worthieſt of the objects compriſed within its meaning

meaning. So if a grant be made to I. S. and both father and ſon are ſo called, the law underſtands that the father only is meant.* So if money be payable on St. Michael's day, Michael the archangel, and not Michael de la Tomba ſhall be intended.† *A digniori ſit denominatio.*‡

1100. Secondly, it may be conſiſtent with law or probability, when one way interpreted, and inconſiſtent when otherwiſe interpreted: in ſuch caſe the genuine meaning cannot be juſtly doubted.§ It is highly *improbable* that a writer ſhould uſe a word, phraſe, or ſentence, in a ſenſe inconſiſtent with what he has already advanced; and yet this ſometimes happens. But it is *impoſſible* that he ſhould uſe a word that has no connexion or coherence with what precedes and follows, if we ſuppoſe him in his ſenſes.

1101. Thirdly, if both ſenſes of an ambiguous expreſſion, be conſiſtent with law, or the nature of things, then that which can be proved to be moſt conformable to the inten-

* 6 Rep. 20, Salk. 7, Bridgm. 15. † 2 Inſt. 485.
‡ Wingate, 265. § C. L. 42[b].

tion of the writer, muſt be deemed to be the genuine ſenſe.* So the word *creature* is equivocal in Rom. viii. 19; or it may denote men or inſenſible beings: Grotius takes it in the laſt ſenſe, but Locke, more juſtly, in the firſt ſenſe.

1102. Or, fourthly, one ſenſe of the ambiguous word or phraſe, &c. may be agreeable to the plain or probable purport, deſign, or intent of the writer, and the other inconſiſtent or leſs agreeable thereto: in this caſe alſo, the interpretation to which the preference ſhould be given, is obvious.

1103. And here we muſt obſerve, that words may have different ſenſes in different ages, and this the law will notice.† But it is plain, the writer muſt mean that ſenſe in which the word was taken in his age, unleſs the contrary appears. For, as a great judge well obſerves, the meaning of words in any law, is to be known either by their uſe and ſignification before the law was made, or from ſome law or inſtitution declarative thereof.‡

* 2 P. Wms. 136, Powel on Deviſes, 494, 495.
† 3 Mod. 28. ‡ Vaugh. 305.

1104 The

1104. The probable ſenſe of ambiguous words in laws and charters, is alſo ſaid to be frequently explained by long uſage.* With regard to laws, this method may be juſt, as they are explained by thoſe who are appointed to explain them; but with regard to charters, it may be fallacious, for the intent of thoſe that framed them, is not neceſſarily that of thoſe for whom they were framed.

1105. It is alſo laid down as a maxim in law, that words in a grant are taken moſt ſtrongly againſt the granter. This is juſt, wherever there is any palpable ambiguity, for ſuch words excite a hope, which it would be unjuſt to excite, and diſappoint; but where the ambiguity is not obvious, either to the grantor or grantee, the intention is wanting in the former, and no diſappointment can ariſe in the mind of the latter, and therefore ſuch conſtruction appears unjuſt. See Paley.

1106. Fifthly, if the ſenſe of a clauſe be obſcure, by reaſon of an erroneous deſcription, whether of a perſon, or of a thing, it may be

* Vaugh. 169, Peake on Evidence, 120.

elucidated by extrinſic circumſtances; for, if the intent can be aſcertained, the clauſe muſt be interpreted according to it.*

1107. Sixthly, if a word is capable of being underſtood either *generically* or *ſpecifically*, it ſhould rather be taken generically, unleſs there is ſomething that implies rather the ſpecific, than the generic ſenſe. Thus the word *funis*, denoting equally either *ropes* in general, or cables, in the fourteenth ode of the firſt book of Horace, denotes *ropes*, according to the ableſt interpreters, and not cables, though Bentley thought otherwiſe. See Dacier and Sanadon's notes.

SECTION III.

OF THE FIGURATIVE SENSE, OR TROPES.

1108. Words taken in a ſenſe which they do not literally denote, but barely ſuggeſt to the mind, are called *tropes*, (from the Greek τρεπω, verto,) as their literal ſenſe is as it were

* 11 Rep. 21ª. Powel on Deviſes, 499.

converted

converted into another, different indeed, but grounded on a relation which the literal ſenſe bears to ſome other object. And as this relation, or the object ſuggeſted by it, is thus, as it were, ſketched out by this trope, it is called *a figure*, and the ſenſe or meaning, thus ſuggeſted, is called the *figurative ſenſe*.

1109. Many have indeed diſtinguiſhed tropes from figures; but, as Dr. Johnſon obſerves, they are frequently (and juſtly) confounded by the moſt accurate writers.*

1110. Figurative language is employed either through neceſſity, as ſeen No. 21.; or, in order to excite ſtrong emotions, or enlarged conceptions of things. The neceſſity aroſe either from a ſcarcity of words, as in the earlieſt and leaſt cultivated languages, or from a real impoſſibility of finding ſuitable expreſſions in the literal ſenſe. Thus, words literally denoting objects of ſenſe, are employed to denote mental operations, emotions, perceptions, or conduct, which are not objects of ſenſe, but nevertheleſs bear ſome relation to ſuch objects. So we ſay, a *hard* or *ſoft hearted*

* Diction. *Figure.*

man, a *clear* head, a *rough* or *ſmooth* behaviour, *inflamed* by anger, *warmed* by love, *ſwelled* with pride, *melted* into grief, &c. And theſe, Dr. Blair remarks, are almoſt the only ſignificant words we have for ſuch notions.* Thus the word *voice*, originally invented to ſignify the articulate ſound formed by the organs of the mouth, is employed to ſignify the intentions and ideas of men to each other; thus, to *give our voice for any thing*, ſignifies to give our aſſent or ſentiment in favour of it. Nay, it was transferred to ſignify any intimation of our will or judgment, though given without the interpoſition of voice in its literal ſenſe, or any ſound uttered at all; thus we ſay, liſtening to the *voice of conſcience*, the *voice of nature*, the *voice of God*. And this not ſo much from barrenneſs of language, as from an alluſion we chuſe to make to *voice* in its primary ſenſe, in order to convey our idea with more force.† So, human paſſions are often aſcribed to the Supreme Being, though it is impoſſible they ſhould be applied in the groſs literal ſenſe, as they involve

* 1 Blair's Lectures, 154.

† Ibid. 356.

imperfections

imperfections incompatible with the Divine nature.

1111. In interpreting many important documents, doubts frequently occur, whether certain words or phraſes ſhould be underſtood literally or figuratively. Before we enter on an examination of this ſubject, it is proper that we ſhould notice the relations, on which the moſt uſual figurative expreſſions are grounded. Theſe relations are principally the four following: *Similitude,* (to which claſs allegories, parables, types, ſymbols, and perſonifications belong.)

Secondly, *exaggerated or extenuated ſimilitude,* called hyperbole.

Thirdly, *the relation of oppoſition,* as in irony.

Fourthly, *the relation of connexion,* as in metonymy.

*Of Metaphors.**

1112. A *metaphor* is a word, uſed to expreſs a ſimilitude which is diſcerned, betwixt the thing ſignified, taken in its literal ſenſe, or

* From *Meta* trans and φερω fero.

ſome of its properties, and ſome other object of which it is predicated. It therefore implies, a mental or tacit compariſon of both objects.

Thus a ſovereign is called the *head* of the ſtate, becauſe, as the head governs the body and is ſuperior to it, ſo the ſovereign governs, and is ſuperior to his ſubjects.

So the Scriptures mention the *eyes*, *ears*, *hands*, *arms*, *words*, and *mouth* of God, as he poſſeſſes powers in ſome meaſure analogous to the functions of thoſe organs or members. So human paſſions are, in popular language, attributed to God, as *anger*, *hatred*, *revenge*, *repentance*, and even *experimental knowledge*, becauſe he produces effects in ſome reſpects ſimilar to thoſe that are derived from ſuch paſſions.

All the epithets mentioned No. 1110, are evidently metaphorical. It is needleſs to mention any further inſtances.

*Allegory.**

1113. *Allegory* is a diſcourſe, ſentence, or narration, entirely metaphorical; the inten-

* From Αλλο aliud, and Αγωρηω narro.

tion

tion being, that it ſhall not be underſtood literally, yet alluding to that ſenſe, and grounded on a ſimilitude with it; as when it is ſaid, that wealth is the daughter of induſtry, and the parent of authority, daughter and parent are evidently metaphors, and the ſentence is an allegory.

A *parable* is a narration in which a fictitious incident is related as real; the perſonages introduced are ſuch as might really exiſt and act as related.

1114. An *apologue* is alſo a fabulous narration, intended for moral or political purpoſes, but in which, the actors are incapable of language, or even of perception, as *Æſop's fables*, and the celebrated apologue of Menenius Agrippa.

1115. *Type*, (a copy, image, or reſemblance) are words, actions, or things, which point out other actions or things, quite different, but which have ſome reſemblance to the former, theſe laſt are called *prototypes* or *antitypes*.

1116. A *ſymbol* is ſome corporeal thing, uſed to repreſent or denote ſomething that hath no corporeal exiſtence. Thus, crowns, ſcepters,

ſcepters, and maces, are the ſymbols of authority.

1117. *Proſopopeia*, or perſonification, is a ſpecies of metaphor, as perſonality is attributed to things incapable of it, as to inſenſible beings, or words, or even modifications of the mind, as the various paſſions and emotions, virtues, vices, and other abſtract notions, as *fortune*, *fate*, &c.

Thus, when Chriſt ſays, *let not your left hand know what your right hand does*, knowledge, and conſequently perſonality, is attributed to the hands.

So St. Paul, Rom. viii. 24, ſays, *hope which is ſeen*, as if hope were a perſon. So we ſay, *love is blind*. So *pallida mors æquo pulſat pede*, &c., as if death had been a perſon. So Satan, which is clearly a word uſed to denote *evil*, 2 Kings xix. 22, 3 Kings, v. 4, Luke xiii. 16, was, in vulgar language, ſpoken of as a perſon or malignant ſpirit.

Hyperbole.

1118. (From Υπερβαλλω ex ſupero,) as when we ſay, *all the world was there*, to denote a great, but indefinite number; or, *he goes*

goes a ſnail's pace; or, as *ſwift as the wind*, &c.; in ſuch caſes, exaggeration and extenuation are clearly perceived.

Irony.

1119. *Irony*, denotes ſpeaking by contraries, expreſſing one thing and meaning another. It is generally uſed for rallying or ſcoffing; in ſpeaking, it is perceived by the tone of the voice, and in writing, by the evident diſcordancy of the ſubject with what is ſaid of it.

Metonymy.

1120. When one word is uſed inſtead of another which it ſuggeſts, by reaſon of the connexion which the things ſignified by both have with each other, the word thus employed inſtead of another, is called a *metonymy*.

As the connexions which things have with each other, are numerous and various, ſo alſo are theſe ſubſtitutions of the words that denote one of the links, for thoſe that denote the other, or the whole. I ſhall mention only

only the moſt conſiderable inſtances of theſe ſubſtitutions.

Firſt, as *cauſes and effects* are connected with each other, the *cauſe* or *inſtrument* is often put for the *effect*. Thus a legible *hand*, means a legible *writing*, and tongue or lip for *language*; or an *effect* for a cauſe, as in the phraſe, he *earned his bread by the ſweat of his brow*, that is by *labour*, of which ſweat is the effect. So the *author or inventor* of any thing, being the cauſe thereof, is ſubſtituted for the work or thing invented. Thus in the goſpel, it is ſaid, *they have Moſes and the prophets*, inſtead of the writings of Moſes and the prophets. So the words *Ceres* and *Bacchus*, are uſed for bread and wine, of which they (diſtinctively taken,) were thought to have introduced the uſe. And ſo *Mars* denoted war, *Vulcan* fire, *Pallas* oil, &c.

Secondly, when a paſſion or deſire is put for the object of that paſſion or deſire. Thus, ad Coloſs. 5, *on account of the* HOPE *reſerved for you in heaven*, meaning the *object* of your hope, which is reſerved, &c.

Thirdly, ſo a *part of any thing is put for the whole*, and the whole for the part, they being connected

connected with each other. Thus, in Latin *puppis*, and in Engliſh *ſail* is put for a ſhip. So we ſay, ten ſail of the line, for ten ſhips of the line.

We ſay alſo, a *perſon* was buried, though we believe and mean, that his *body* only was buried. And alſo, that ſuch a perſon is in the other world, or in heaven, though we believe his ſoul only to be there. So a general is put for his army, of which he is the principal part, as *Hanibal defeated the Romans.*

Fourthly, the *container* is often ſubſtituted *for the thing contained* in it. So we ſay, *he loves his bottle*, inſtead of wine contained in it. And Virgil ſays, *ille impiger hauſit ſpumantem pateram, et toto ſe proluit auro.* Where we ſee a double metonymy, namely, the preſent, and that of *gold* taken for the cup, of which it was the material cauſe. So the *ſeat or reſidence* is put for the perſons therein reſiding, as *heaven* for God, when we ſay, may heaven defend us. So a country or city, &c. may be taken for the inhabitants, as *France declared war*, &c. The thing *contained*, is alſo ſometimes ſubſtituted for the *container*. So Virgil ſays, *vina coronant* for *pateras.*

Fifthly,

Fifthly, the ſign for the thing ſignified. So the *crown and ſcepter* are taken for the royal authority, of which they are the *ſigns*. So the Latins ſignified *peace* by the toga, as cedant *arma togæ*, &c.

Sixthly, *abſtract* terms for *concrete*. So juſtices denote the judges, and the *watch*, the watchmen. And Virgil ſays *noctem cuſtodia ducit inſomnem*.

The choice of names is not a matter of indifference to thoſe, who wiſh to argue accurately; when they are obliged to deſcribe their feelings or thoughts by metaphoric expreſſions, they will prefer the ſimpleſt; thoſe with which the feweſt extraneous aſſociations are connected. Words, which call up a variety of heterogeneous ideas to our minds, are unfit for the purpoſes of ſober reaſoning; our attention is diſtracted by them, and we cannot reſtrain it to the accurate compariſon of ſimple propoſitions. We yield to pleaſing reveries, &c. 3 Edgeworth on Education, 8vo. p. 130.

SECTION IV.

RULES WHEREBY TO DISCOVER WHETHER THE PROPER SIGNIFICATION BE LITERAL OR FIGURATIVE.

1121. All words, phraſes, ſentences, or diſcourſes, ſhould be underſtood in the literal and not in any figurative or typical ſenſe, when the literal ſenſe is conſiſtent with reaſon, that is, with other known truths, whether phyſical, metaphyſical, hiſtorical, or moral, the ſcope and intention of the writer, as elſewhere clearly indicated, or at leaſt not contradicted by him; nay, if contradiction to ſuch truths appears, by the context or otherwiſe, to have been intended by the writer, his aſſertions muſt ſtill be taken in the literal ſenſe; and the reaſon is, becauſe the literal ſenſe is that alone which was intended and deſigned in the primitive formation of language, the figurative being only a ſecondary ſenſe, introduced either through neceſſity, or to give more ſtrength or vivacity to expreſſions.

1122. But if the contradiction to known truths

truths be evident, or certain, or probable, and the intention of aſſerting it, neither evident, certain, or probable, but, on the contrary, either certainly or probably the reverſe, in ſuch caſe, the words, phraſes, diſcourſe, or narration, that involve that contradiction, muſt be taken in a figurative ſenſe, or at leaſt, as mere popular expreſſions, as ſhewn in No. 1094. For, when rational beings communicate their thoughts by any ſigns, it would be unjuſt, it would be injurious to aſſign to them, unneceſſarily, an irrational meaning. It would be to ſuppoſe them ideots, liars, or ignorant, or cruel, as the caſe may be. And ſuch ſtrict acceptation were unneceſſary, if any other were probable or poſſible.

1123. Hence, firſt, where the literal ſenſe is *metaphyſically impoſſible*, as in the phraſe *inflamed with anger*, &c. it is plain the word muſt be underſtood *figuratively*.

1124. Secondly, if words underſtood in the literal ſenſe, or the event they compriſe, be contrary to the *laws of phyſical nature*, and inconſiſtent with the circumſtances that ſhould naturally accompany or ſucceed ſuch an event, literally underſtood, and not evi-

dently

dently intended by the writer to be taken in that ſenſe, they muſt be taken figuratively. Thus, when Chriſt called Herod a *fox*, Luke xiii. 32, we muſt not ſuppoſe, (as ſome have done), that Herod was inſtantly transformed into a fox, a ſuppoſition inconſiſtent with hiſtory, but rather conſider that word as a metaphor, denoting *art* and *cunning*, as Grotius and almoſt all interpreters have conſidered it.

So, when the prophet Iſaiah ſays,* that *the wolf and the lamb ſhall dwell together*, this in the literal ſenſe being contrary to the laws of animal nature, muſt be underſtood figuratively, denoting, that at a ſubſequent period, oppreſſors ſhall dwell in peace with their harmleſs neighbours. This figure is frequently uſed by Arabic and Perſian writers, as the celebrated Sir William Jones has ſhewn.

1125. Thirdly, when the literal ſenſe denotes ſomething *morally impoſſible*, being incompatible with what can with any degree of probability be ſuppoſed to happen in the

* Chap. xi.

general ſtate of ſociety, it muſt be rejected, and the words that convey it, muſt be underſtood *figuratively* of ſomething approaching as near as poſſible to the literal ſenſe; as when Chriſt requires, that *if the leg or hand ſcandalize you, they ſhould be cut off*, Matth. v. 30. So *proverbial expreſſions* which are evidently abſurd in the literal ſenſe, muſt be underſtood *figuratively*, as they generally are by the people, among whom they are uſed. However, ſome wrong-headed Gallican Biſhops in the fifth century, miſapprehending the precept of Chriſt, Luke xii. 35, *Let your loins be girt, and lamps burning in your hands*, thought themſelves obliged to wear girdles, and went about in an unuſual dreſs; but a ſenſible pope of that age, repreſented to them that theſe words ſhould be taken *figuratively*, and humourouſly aſked them why they did not alſo carry burning lamps in their hands.*

1126. If it ſhould ſeem *doubtful*, whether a word, or a ſentence, or diſcourſe, ſhould be underſtood literally or figuratively, both being equally poſſible or probable, the literal ſenſe,

* Fleury's Eccles. Hiſt. vol. v. p. 628.

as

as being the moſt natural, ſhould be preferred.

1127. If the figurative ſenſe be ſuſceptible of *different* ſignifications, that which deviates leaſt from the literal, or, which is moſt conformable to the ſcope and intention of the writer, and leaſt ſtrained and far fetched, ſhould be deemed the *proper* ſenſe. Thus, St. Paul having ſaid, Rom. viii. 19, *the earneſt expectation of the creature,* (or rather, *of the creation**), *waiteth for the manifeſtation of the ſons of God*; and, v. 22, *for we know, that the whole creation groaneth and travaileth in pain, until now*; Grotius thinks the *whole creation* meant the *univerſe,* even inſenſible beings, by a ſort of proſopopœia; but Locke, taking the words alſo in a figurative ſenſe, thinks they denote only mankind, particularly the Gentiles; and this interpretation being leſs ſtrained, and approaching more nearly to what is literally poſſible, ſeems preferable to the firſt.

Whether the 14th Ode of the firſt book of

* So Wakefield tranſlates it, or the *world* as Newcome interprets it.

Horace ſhould be underſtood hiſtorically, or allegorically, has been much diſputed; all indeed neceſſarily allow the addreſs, O *navis*, to be a proſopopœia; but, ſome think, that Horace meant to diſſuade a ſecond voyage in a ſhip, already much ſhattered, indeed ſo ſhattered, that it were impoſſible it ſhould again put to ſea with any proſpect of ſafety. Others therefore think, and in my opinion with greater probability, that by a *ſhip*, he meant the republic, which he meant to deter from a ſecond civil war. The exact application of the whole to the circumſtances of the times, may be ſeen in Dacier and Sanadon's notes, and Watſon's Horace.

1128. A figurative expreſſion ought to follow the ſenſe of the context, and not wreſt the viſible meaning to ſomething remote from the ſubject in hand.*

1129. Hence, metaphors ſhould not be conſtrued to denote a ſimilitude, in every reſpect, but in that only, on which they are founded; *non enim res tota toti rei neceſſe eſt*

* Locke on Rom. ix. 21.

ſimilis

*ſimilis ſit, ſed ad ipſum ad quod conferetur ſimilitudinem habeat oportet.**

1130. Beſides the figures here mentioned, commonly called rhetorical figures, there are others in all languages, called *grammatical figures*; theſe conſiſt in certain conſtructions, contrary to the common and natural rules of the language, yet authorized by the practice of the beſt writers. But for theſe, I muſt refer to the grammars of Port Royal, which explain thoſe of the latin and Greek languages, and ſhall only obſerve, that neither theſe nor the former figures, are in general capable of being literally tranſlated into any other language, as may be ſeen on conſulting Arias Montanus's verſion of the New Teſtament, and Pagininus's of the old. See Dr. Campbell's Philoſophy of Rhetorick, vol. ii. p. 181, 182.

1131. The wiſeſt men ſuit their language to the comprehenſion of thoſe they addreſs. Therefore, when they are aware that general truths, literally expreſſed, are not ſuited to the capacity of thoſe they mean to inſtruct, they

* Cicero vel autor ad Herennium, lib. iv. cap. 46.

convey them in ſuch figurative language, as they know will make their general purport more eaſily underſtood. Such is the famous apologue of Menenius Agrippa.

1132. Hence, their language muſt be ſuited to appearances, and to popular opinions, (unleſs it be their expreſs intention to alter thoſe opinions,) and not merely to ſuch opinions as they themſelves entertain. So, where St. Paul, 1 Corinth. i. 21, ſays, *it pleaſed God by the fooliſhneſs of preaching, to ſave thoſe that believe,* it is plain his preaching was not fooliſh in his *own opinion*; his meaning therefore was, that it *appeared to others* to be fooliſh.

1133. Therefore, though figurative and popular language is not literally and logically true, yet it is *tranſcendentally* true, when it anſwers the general intent of the ſpeaker, and is ſo underſtood by the hearer, and therefore in a ſenſe fully equivalent to the literal.*

* See Prieſtley's Lectures on Oratory, Lect. xi. p. 76, in 4to.

SECTION V.

OF THE EQUITABLE SENSE.

1134. The equitable ſenſe of words, phraſes, clauſes, diſcourſes, or documents, is that which the expreſs, or juſtly preſumed intention of the author demands; it is, therefore, either *ſtrictly* literal, or narrow, or enlarged, in order to make it coincide with the intention when thus diſcovered; ſuch interpretation is called *liberal.*

1135. In conformity with the ſecond general maxim, many rules are eſtabliſhed. Its conſonance with univerſal reaſon, cannot be better illuſtrated, than by the words of the immortal Grotius, on Matth. xii. 3. *Scire leges non eſt verba earum tenere, ſed vim et poteſtatem; qui a prior et potentior eſt quam vox, mens dicentis. Ideo quoties certis indiciis compreliendi poteſt mens ejus qui legem ſcripſerit, præferri debet mens dicto. Verum enim eſt quod apud Ciceronem lib. de inventione ſecundo legimus, nullam rem, neque legibus neque ſcriptura ulla, denique ne in ſermone quidem quotidiano,*

atque imperiis domeſticis, recte poſſe adminiſtrari ſi unus quiſque velit verba ſpectare, et non ad voluntatem ejus qui verba habuerit accedere, &c. Now the agreement of parties is a law to the parties.*

1136. The documents to which this mode of interpretation is applicable, are either *authoritative,* as ſtatutes, and the laws contained in the Decalogue and New Teſtament; or *directive,* as awards and teſtaments; or *conventional,* as treaties and agreements. I ſhall briefly mention ſome few maxims relating to the firſt head, as being moſt general and important.

1137. The meaning and intention of a law, ſhould be collected from the ſeveral parts of the act taken together, or from a ſingle part, when not oppoſed by the collected ſenſe. Alſo from the occaſion of enacting it, aſcertained by the hiſtory of the times, and an attentive retroſpect of previous regulations relative to the ſame object, as well as of the nature of the act, whether it be *remedial* or *penal,* and other circumſtances not neceſſary to detail here.

* See Powell on Agreements, p. 370.

1138. But,

1138. But, of whatever kind the law may be, it muſt be preſumed, (unleſs the contrary be evident,) that the legiſlature, which in legal intendment, is the centre of national wiſdom and juſtice, cannot have intended to enact what would be palpably abſurd, idle, or inoperative, or unjuſt, or oppreſſive. Therefore, if the expreſs letter of the act ſhould direct or imply ſuch groſs deviations from wiſdom or juſtice, it muſt be conſtrued, ſo as to be rendered conſiſtent with both, either by enlarging, reſtraining, qualifying, or even contradicting the letter of the act. Of this mode of interpretation, I ſhall produce ſeveral inſtances; this rule extends equally to the interpretation of the Holy Scriptures.

1139. Thus, firſt, if a perſon or thing be *miſnamed* in a ſtatute, yet, if it otherwiſe evidently appears, that the perſon or thing, ſo miſnamed, is the object intended by the ſtatute, by the agreement of the deſcription with that object, and with no other, the ſtatute ſhall have its effect thereon, 10 Rep. 57[b]. Here the conſtruction is *contrary to the letter*, that the ſtatute may not be inopera-

tive,

tive, and the deſcription is a ſurer indication of its object than the name.

1140. Thus, ſecondly, though it is enacted in Magna Charta, chap. 11, that common pleas ſhould not follow the King's court, (that is, ſhould not be purſued in the King's Bench), yet, if in a real action, the writ be abated by judgment in the court of common pleas, and this judgment be reverſed for error in the King's bench, the plea ſhall be proceeded upon there, *by neceſſity*, leſt there be a failure of juſtice; ſo that the caſe muſt be deemed tacitly excepted out of the ſtatute, 2 Inſt. 23. This interpretation alſo is contrary to the letter of the act.

1141. Thus, thirdly, where a ſtatute grants or allows the *greater*, it impliedly grants or allows the *leſſer* of the ſame ſort or kind. And where it prohibits or excepts the *leſſer*, it impliedly prohibits or excepts the *greater* of the ſame ſort or kind. See Moor's Reports, 853, 1 Roll. Rep: 404, and Hardr. 424. For, though ſuch caſes be out of the act, yet it were evidently abſurd, not to include them in its implied meaning.

1142. Thus, fourthly, the ſtatute of Weſtm. 2 cap.

2 cap. 9, having enacted, that *infants* ſhould not be forejudged without mentioning *married women*, it was held, that they alſo were within the ſtatute, 2 Inſt. 375, as juſtice equally required it.

1143. Thus, fifthly, though it was enacted by a ſtatute, 3 James I. that Popiſh recuſants convict, ſhall ſtand and be reputed *to all intents and purpoſes diſabled*, as perſons lawfully excommunicated; and thence it was inferred, that they were not competent to bear witneſs, ſince perſons excommunicated are not; yet a very able law writer, namely, Serjeant Hawkins, juſtly pronounces this inference too ſevere. For competence to teſtimony is an intereſt of public juſtice. 2 Hawk. P. C. B. i. cap. xii. ſec. 6, and 1 Lofft, 263.

1144. Nay, it has been adjudged, that if a ſtatute be againſt common right and reaſon, it ſhall be conſidered as abſolutely void. 8 Rep. 118, and Dyer, 313.

Of Remedial Laws.

1145. A remedial law, is that which tends to remove a miſchief, without annexing any particular penalty, or to compenſate for ſome injury, as to give coſts, &c.

1146. Statutes that aim at ſuppreſſing a miſchief, acknowledged to be ſuch at common law, are conſtrued liberally, that is, favourably to the common law. And therefore it was held, that caſes of a ſimilar miſchief, ſhall be remedied by the ſtatute where it is declarative of the common law. C. L. 76, and 290[b].

1147. But ſtatutes againſt miſchiefs, not deemed to be ſuch at common law, are to be conſtrued *ſtrictly*. See 2 Inſt. 110.

1148. Where the general words of a ſtatute compriſe an act, in reality not miſchievous, ſuch words, though within the letter of the act, ſhall be deemed in reality out of it.

Thus, though it was enacted by the ſtatute of Glouceſter, chap. vii. that if a woman makes a leaſe for life of her dower lands, the reverſioner ſhall have a writ of entry preſently; yet this ſhould be underſtood of a leaſe made for

for another perſon's life, and not of a leaſe made for her own life. 2 Inſt. 309.

Penal Laws.

1149. Statutes, whoſe principal aim is to puniſh the offender, are called *penal* laws.

1150. It is commonly ſaid, that penal laws are to be conſtrued ſtrictly; but the meaning is, that they ſhall not be extended by doubtful and ambiguous words, and that the puniſhment ſhall not be increaſed beyond what the law requires. 2 Inſt. 381, Hob. 270.

1151. Alſo the neceſſity of ſelf-defence excuſes acts that would otherwiſe be criminal, as breaking out of priſon when on fire, &c. 2 Inſt. 590.

1152. But, where a crime is without the letter of the act, yet if it be of the ſame nature as that within the letter, and equally capital, it is held to be within the ſtatute.

1153. So the ſtatute 25th Edward 3d, which makes it treaſon for a ſervant to kill his maſter, is extended to killing the miſtreſs, being the maſter's wife. 11 Rep. 34^{b}, Plowd. 86, Hawk, P. C.

Concluſion.

Concluſion.

1154. In general, we may remark, that comprehenſive univerſal words, ſhall in agreements be taken in an equitable ſenſe; and how much more reaſon is there for conſtruing them ſo, in laws in which no fraud ſhould be preſumed.

1155. Thus, if I grant *all* my trees growing on my lands in *D*, it ſhall not extend to apple or other fruit trees in my orchard, or garden, if there be any other trees on my ground. Powell, Contracts, 378.

1156. So if I grant a man a common out of *all* my manor, yet he ſhall not have it in my garden or any ſuch place, but only in commonable places. Powell, ibid. 377.

Yet, in the caſe of Arnold and Count Schmettau, Berlin, 1775, where the Count had leaſed a mill to Arnold, and in the leaſe it was expreſſly covenanted, that the Count might furniſh his fiſhponds with water from *any part* of the ſtream that worked the mill; and ſome years after, the Count made a cut from the ſtream to his ponds, a little above

above the mill, and diverted ſo much of the water, that the mill could not work, the Pruſſian judges interpreted the covenant ſtrictly, and refuſed relief to the miller. But, for this judgment they were ſeverely puniſhed by Frederic the Second.

THE END.

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